

Summary of Key Briefing Points

1030-1130am MST Friday January 29, 2016

Current Conditions as of Friday 12Z-15Z 29 January

Tropics and Mid-latitudes

Over the Tropical Pacific:

- Convection: Convective has increased in the mission region over night, substantially more active than 12z THU
- Convection is along a line north of the equator between 2N-7N, from 175W to 135W
- In mission region, convection is mostly north of Christmas Island
- In the region 160W-150W, convection is tending to shift slowly westward, with cirrus outflow west/NW of convective elements
- Cloud track upper level winds indicate a larger scale westerly flow (10-20 kts) in region , 2N-10N, 140W-165W

Tropical Outlook

- Convection to remain active in region 160W-150W Friday aftn--
 - Confidence is high based on EC/GFS model agreement
 - Convection expected to be more active on western edge of flight region
 - Convection expected to be most active just north of CI
- By 00Z SUN 31 Jan, convection and upper level outflow in mission region active
 - Confidence is moderately high based on model consistency/agreement
 - Zonal band of most active convection, 170W-130W
 - Band of activity from 2N-5N; just north of CI ,
- By 00z MON, 1 FEB EC predicts a weakening of convection in mission domain, centered near 4N.
- Large scale convection expected to become less favorable for TUES, 2 FEB.

--- in summary, the preliminary indication from FRI forecasts is for a favorable convective regime for flight mission activity Friday-Sunday, with activity expected to diminish early next week.

Midlatitude Outlook

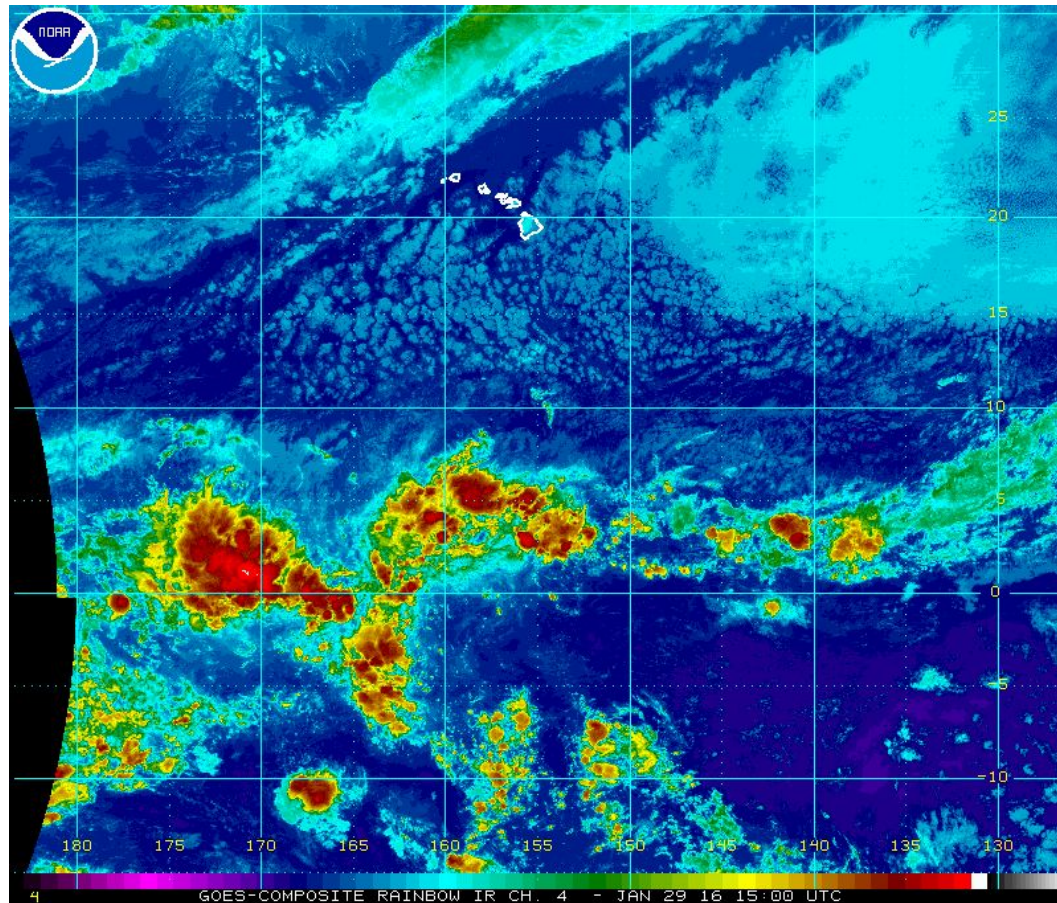
Short Term:

- Quiet CA next thru next 48 hrs- thru Wed night.

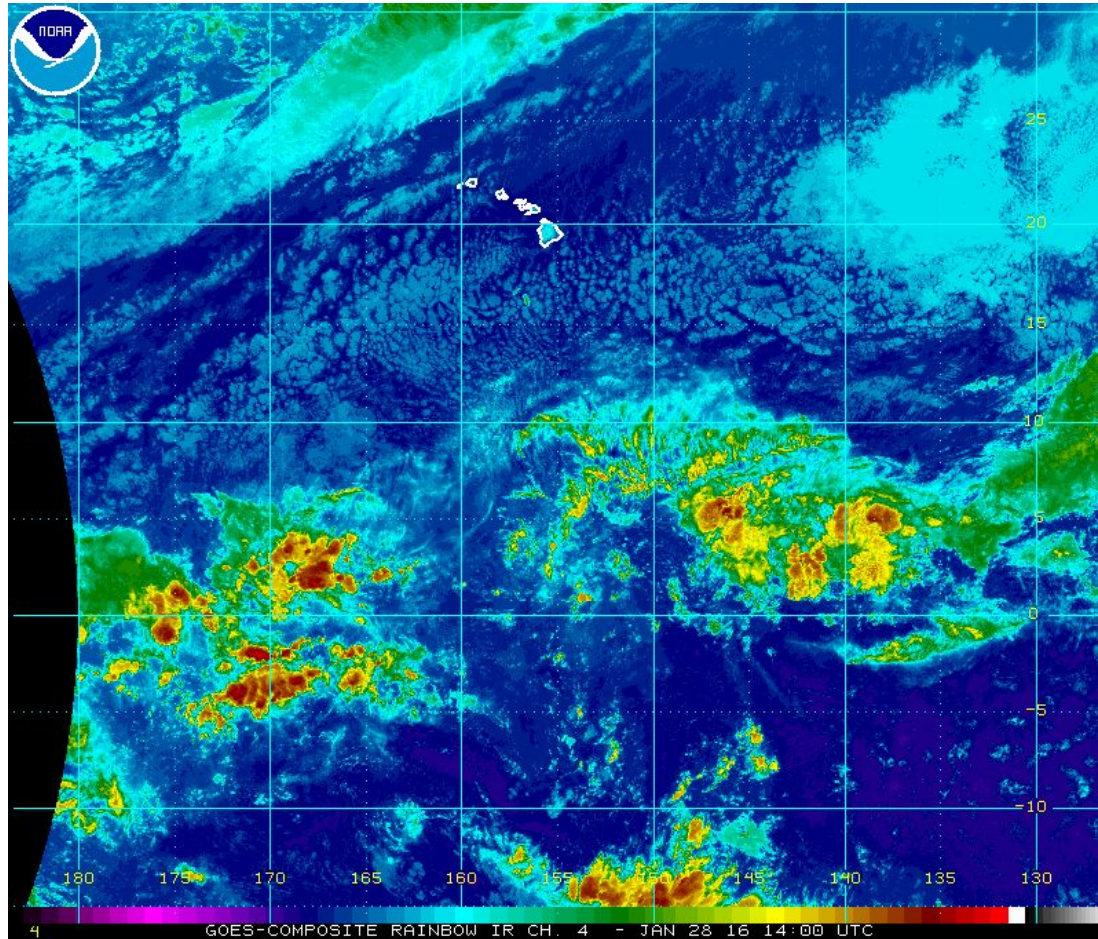
Medium - Long Term:

- High confidence that CA will be mostly dry in the period 25 Jan thru Thu 28 Jan.
---- GEFS ensemble in strong agreement to 168 hr lead (Thur 28 Jan) for a transient Ridge on the Pacific coast.
- Rains return to far coastal NCAL Thurs, spreading into NSierra Fri, associated with slowing sagging cold frontal boundary.
- GFS 12Z Tues run indicates cyclogenesis on this frontal boundary to occur near 140W on Sat.
- GFS 12z Tues run indicates Strong frontal cyclone to hit central CA on Sunday (120-132 hr lead). Confidence low...12Z ECMWF does not generate this frontal cyclone
- Days 7-10 indicates has low confidence, with considerable model disagreement.
--- the wx pattern will be dynamic and progressive, hence the lower confidence.

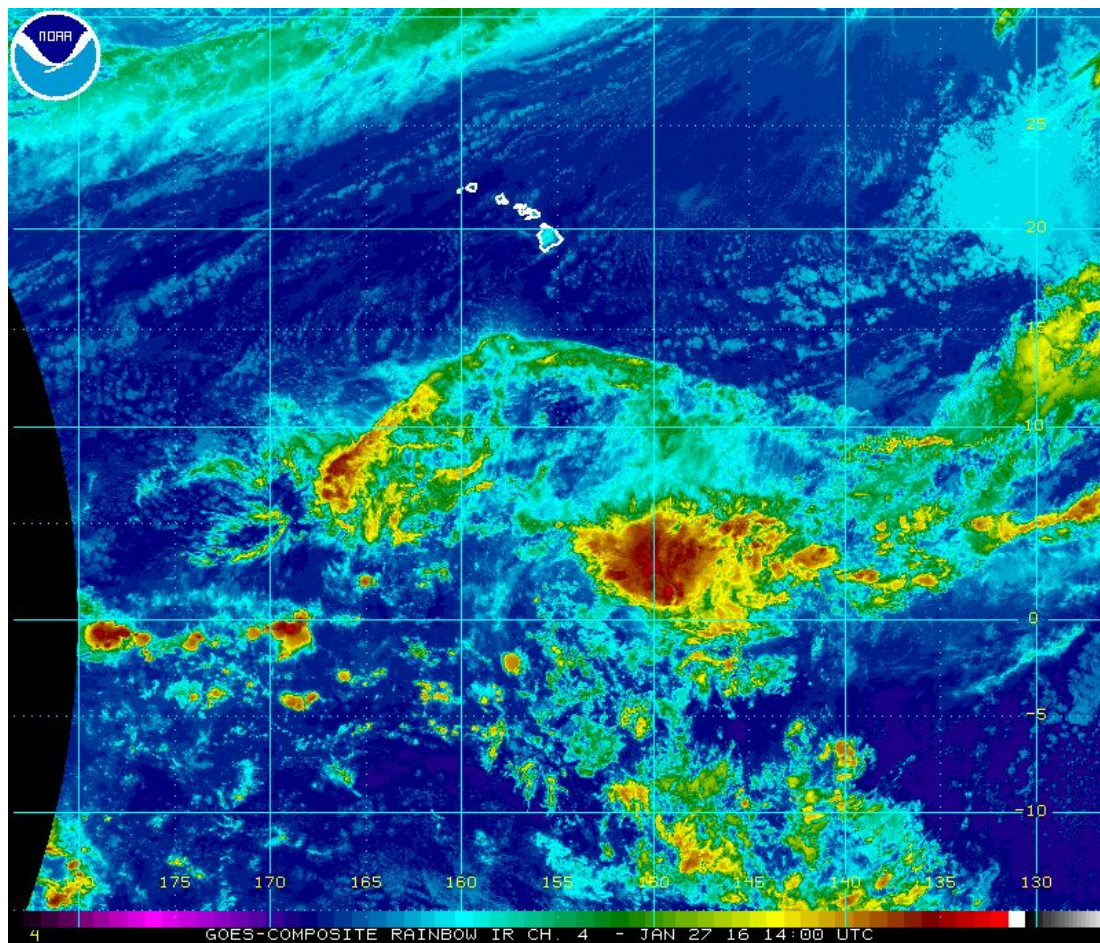
Friday 15Z January 29 Enhanced IR Image



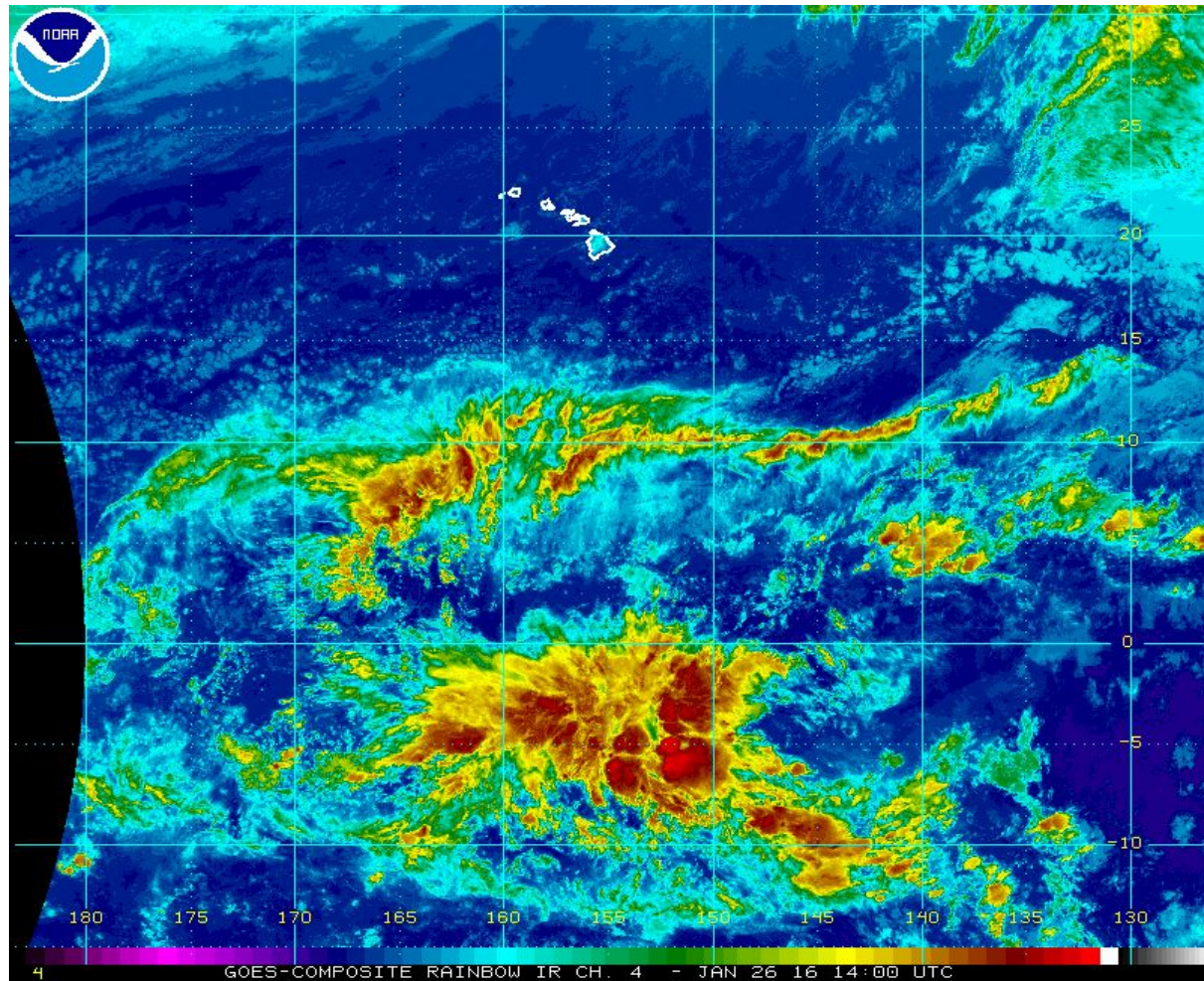
Thursday 14Z January 28 Enhanced IR Image



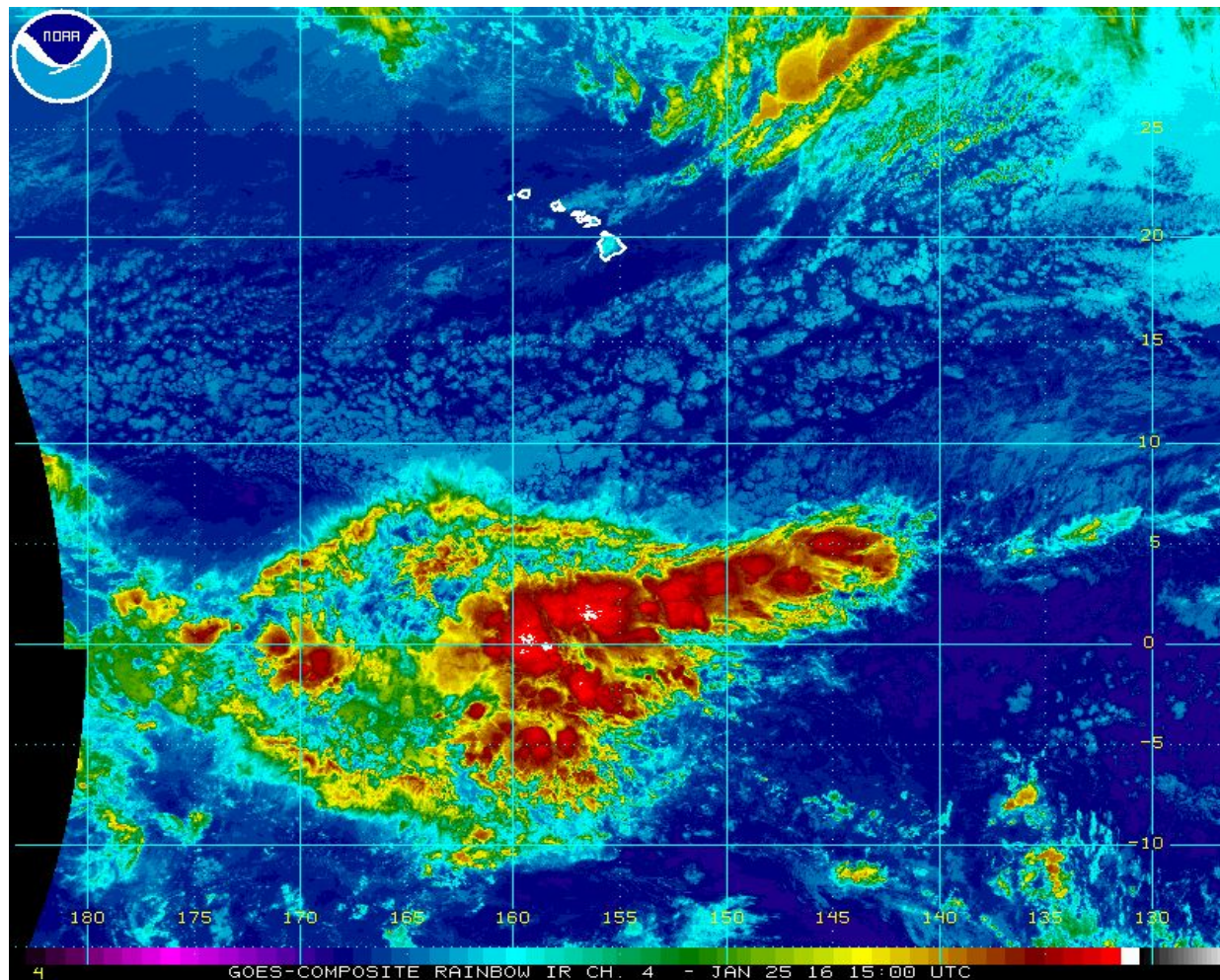
Wednesday 14Z January 27 Enhanced IR Image



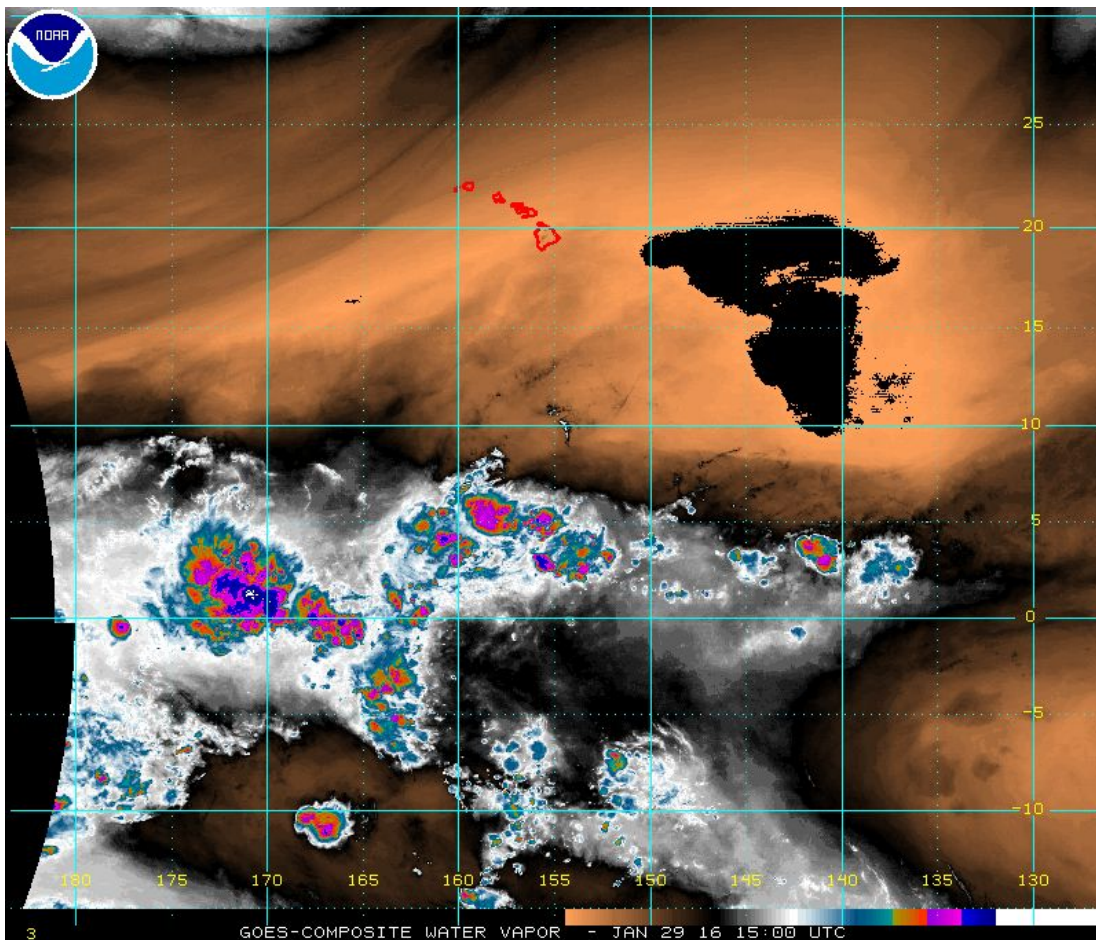
Tuesday 14Z January 26 Enhanced IR Image



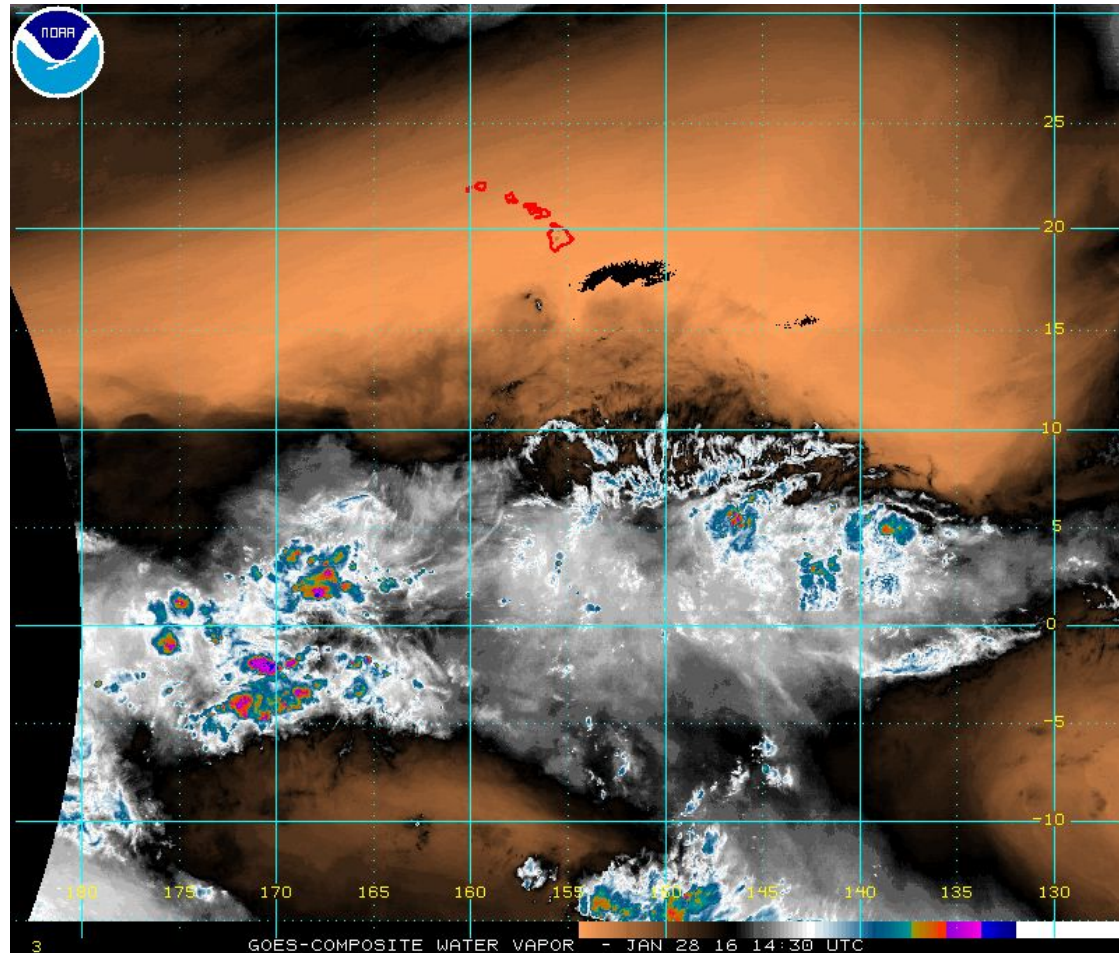
Monday 15Z January 25 Enhanced IR Image



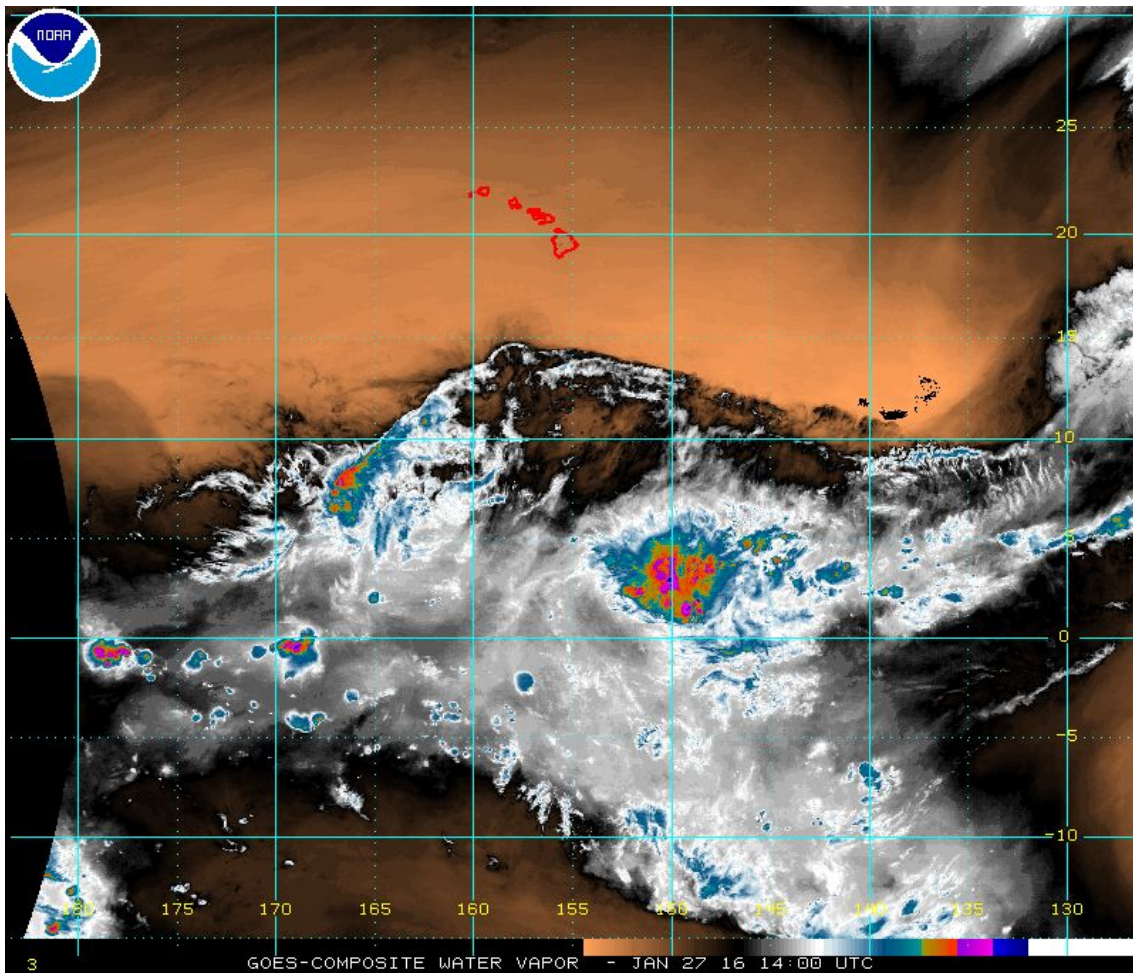
Friday 15Z January 29 Water Vapor Image



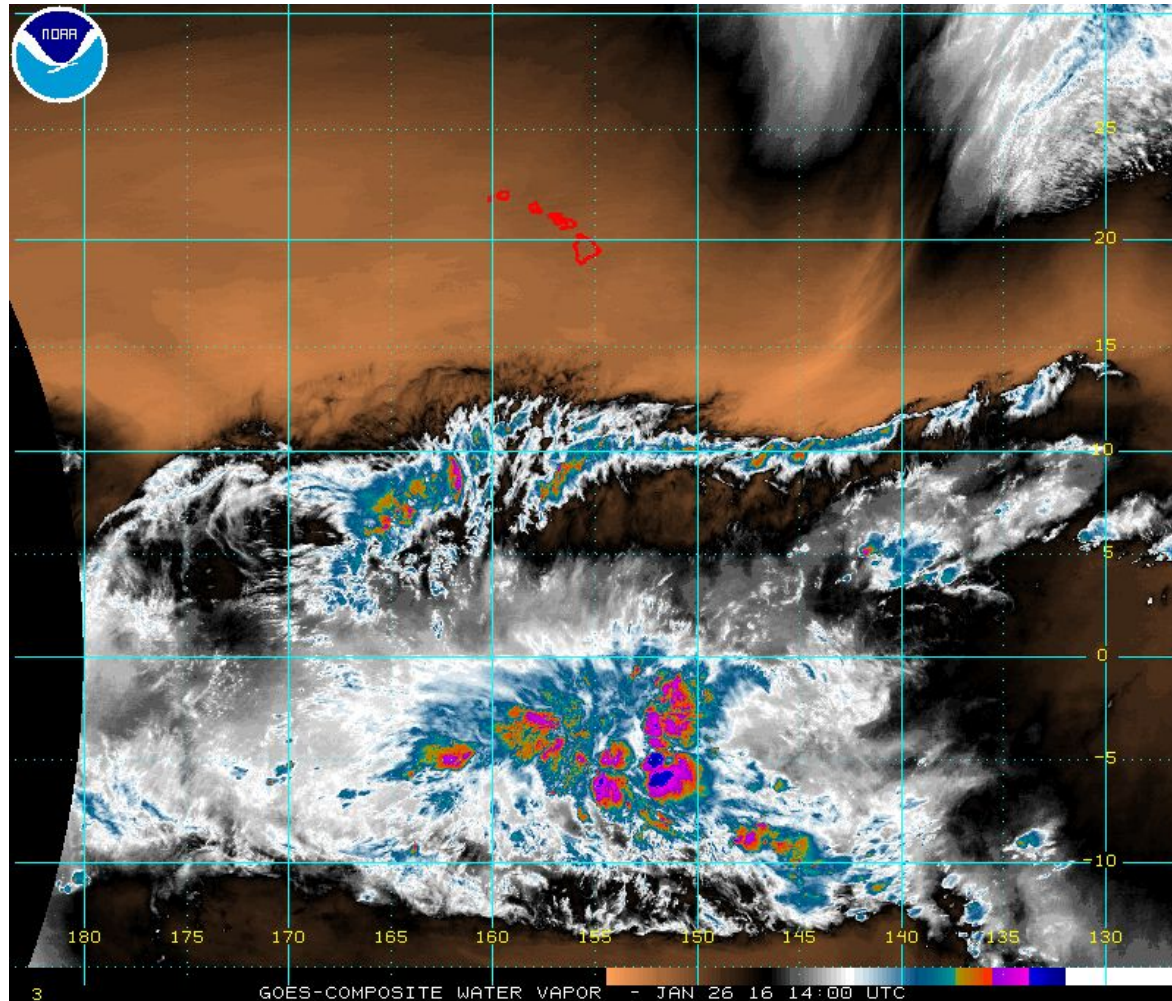
Thursday 14Z January 28 Water Vapor Image



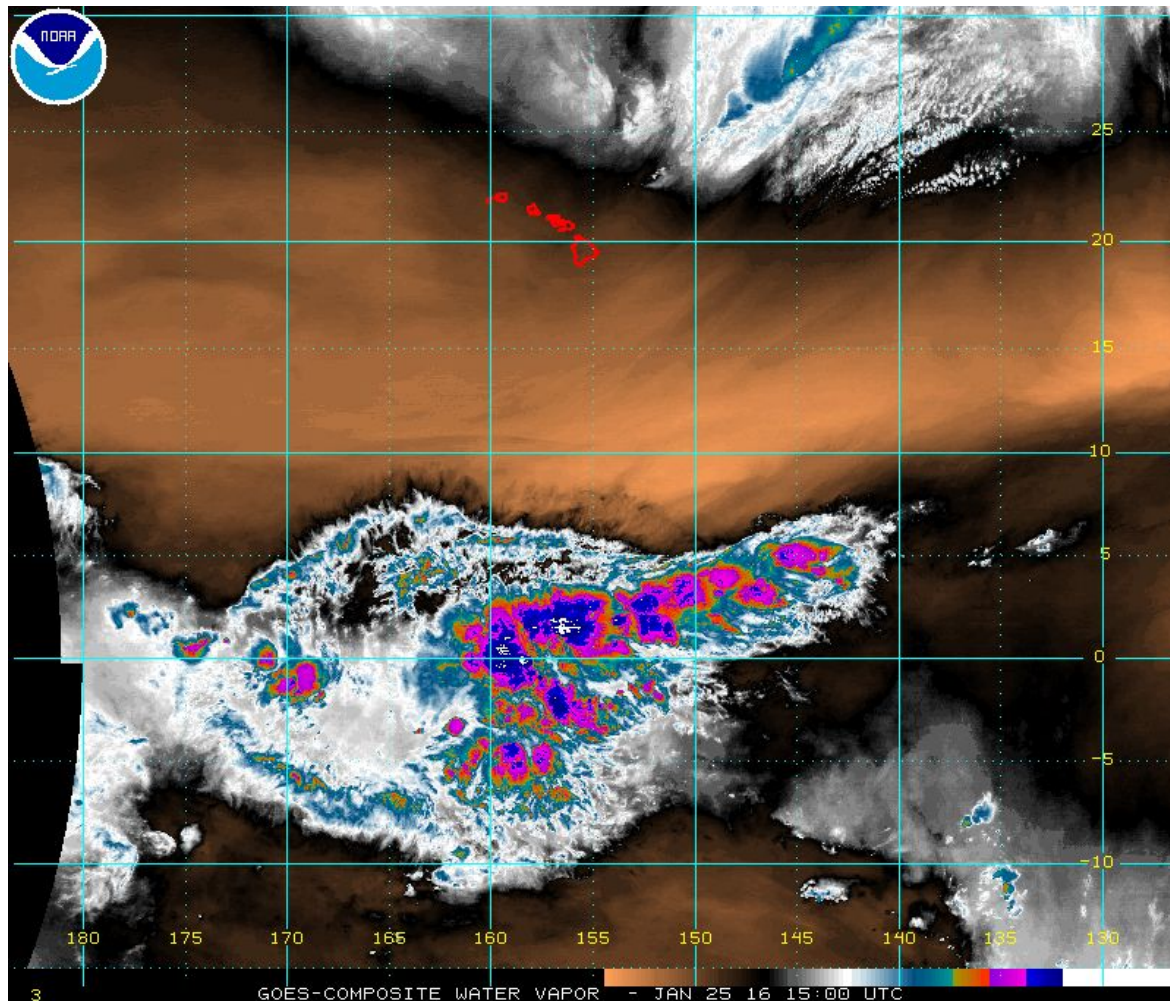
Wednesday 14Z January 27 Water Vapor Image



Tuesday 14Z January 26 Water Vapor Image

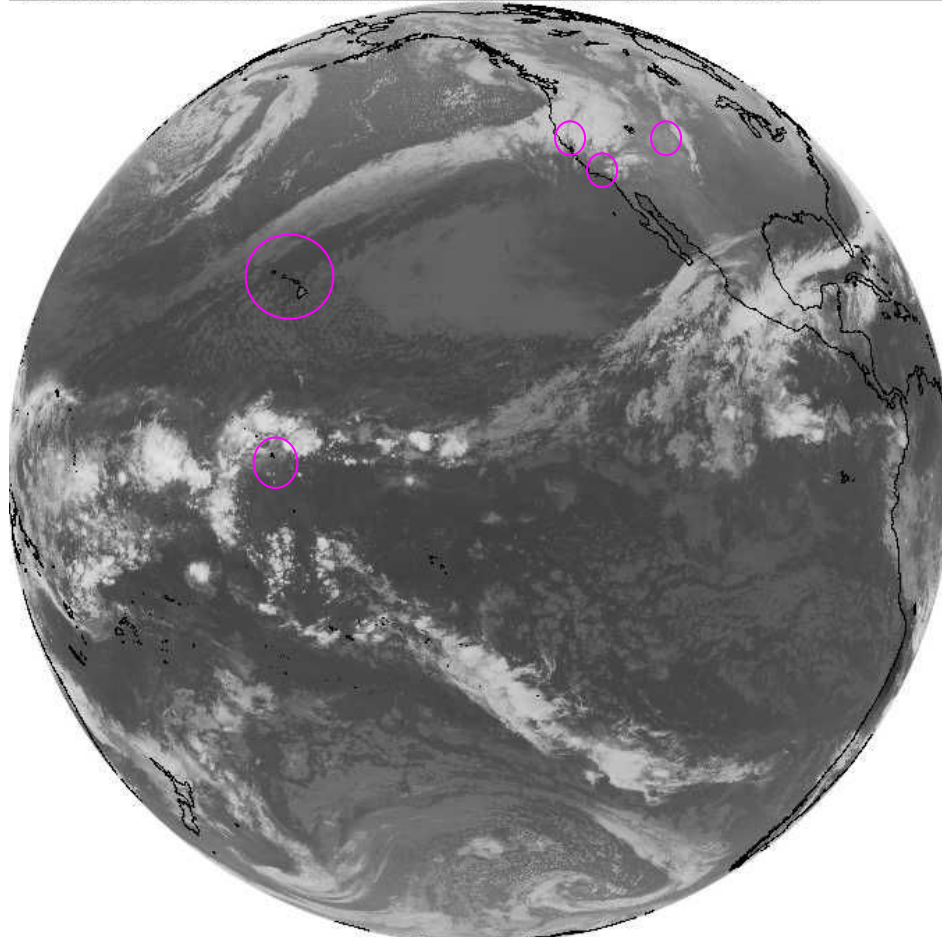


Monday 15Z January 25 Water Vapor Image



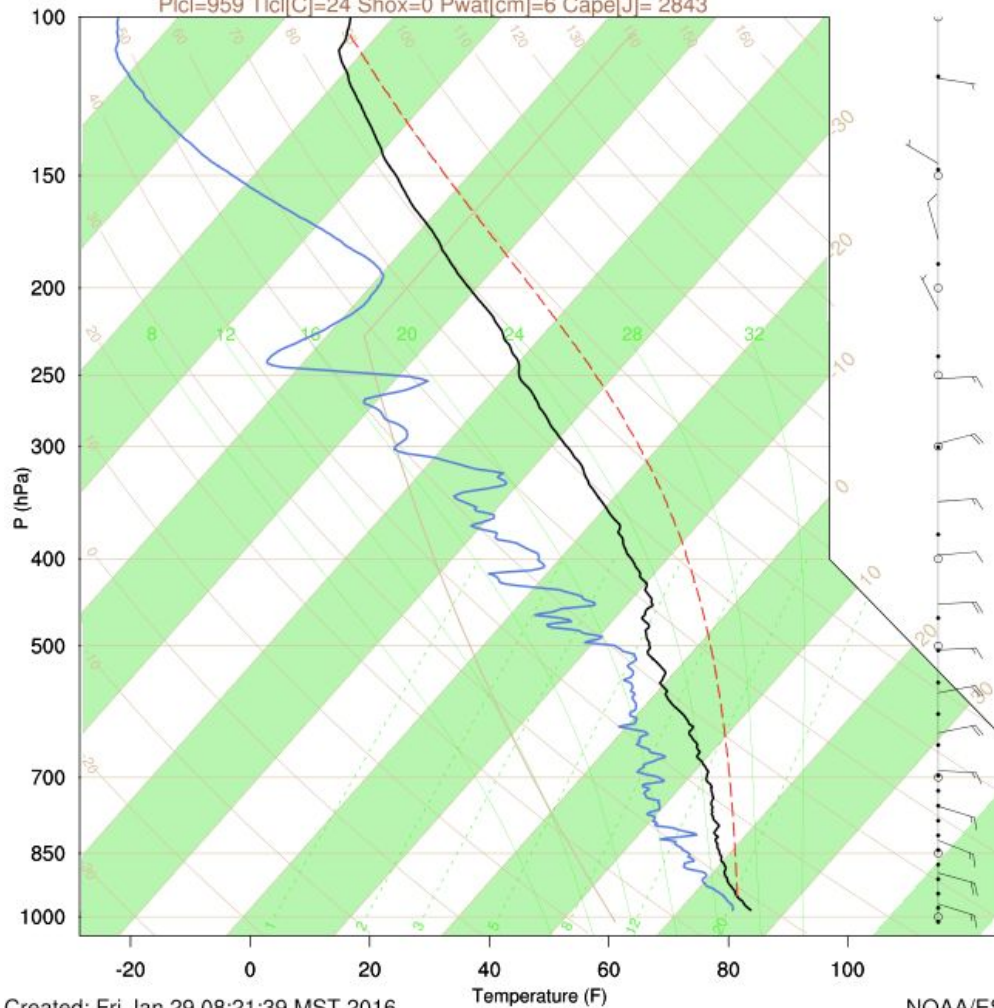
FRI 15Z January 29 GOES West IR Image

GOES WEST FULL DISK LONGWAVE IR 29 JAN 16 15:00 SSEC: UW-MADISON



Kiritimati Is: 01/29/2016 1118Z Downward 2.01N 157.40W

Plcl=959 Tlcl[C]=24 Shox=0 Pwat[cm]=6 Cape[J]= 2843



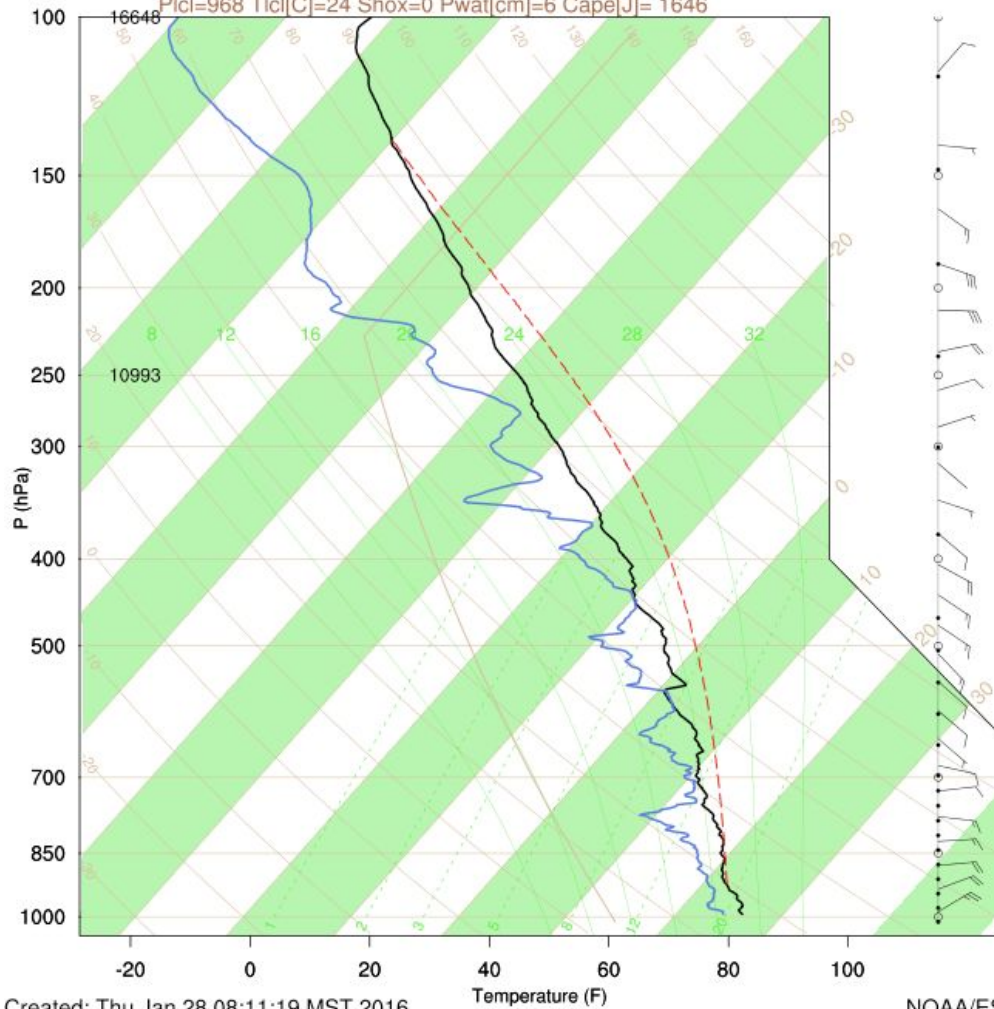
Created: Fri Jan 29 08:21:39 MST 2016

Temperature (F)

NOAA/ESRL PSD

Kiritimati Is: 01/27/2016 2323Z Downward 2.01N 157.40W

Ptcl=968 Tlcl[C]=24 Shox=0 Pwat[cm]=6 Cape[J]= 1646

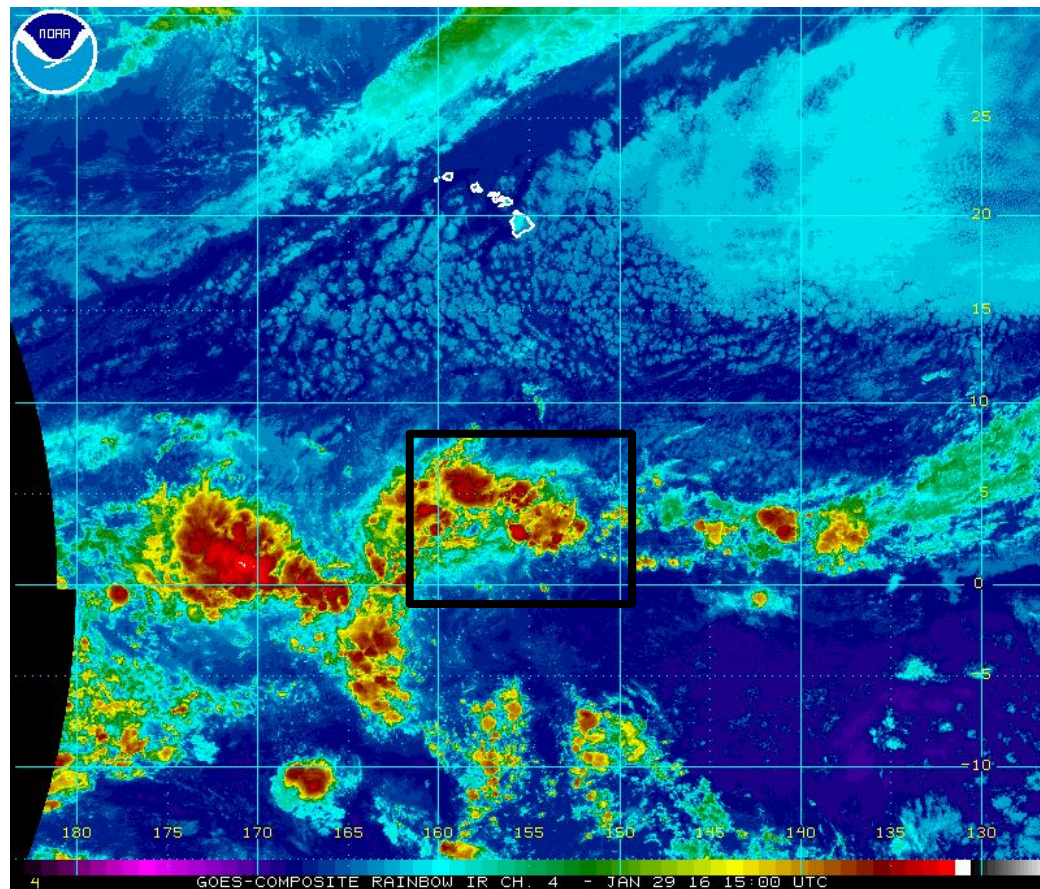


Created: Thu Jan 28 08:11:19 MST 2016

Temperature (F)

NOAA/ESRL PSD

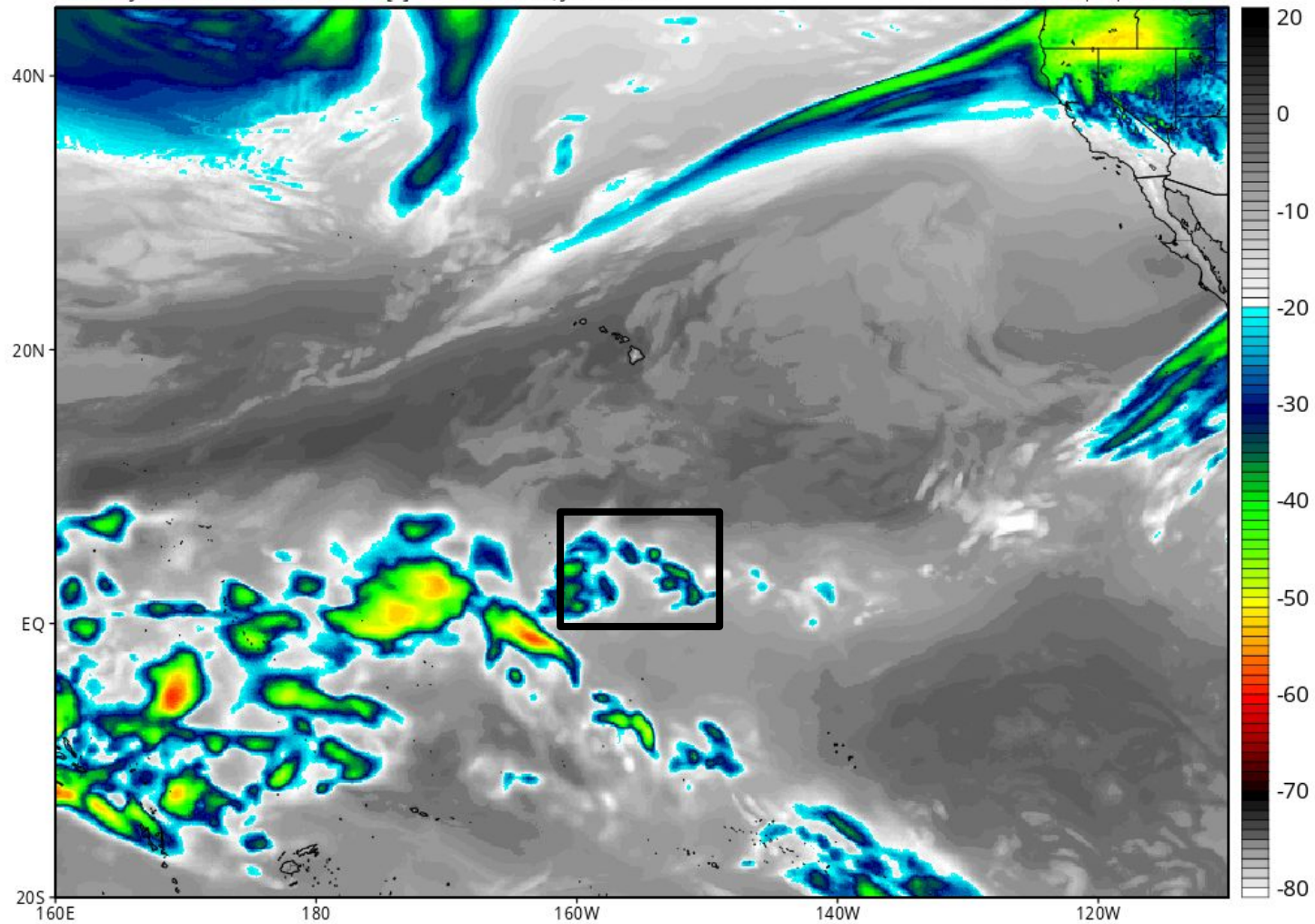
FRI 15Z January 29 Enhanced IR Image



GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 29 2016 Forecast Hour: [6] valid at 18z Fri, Jan 29 2016

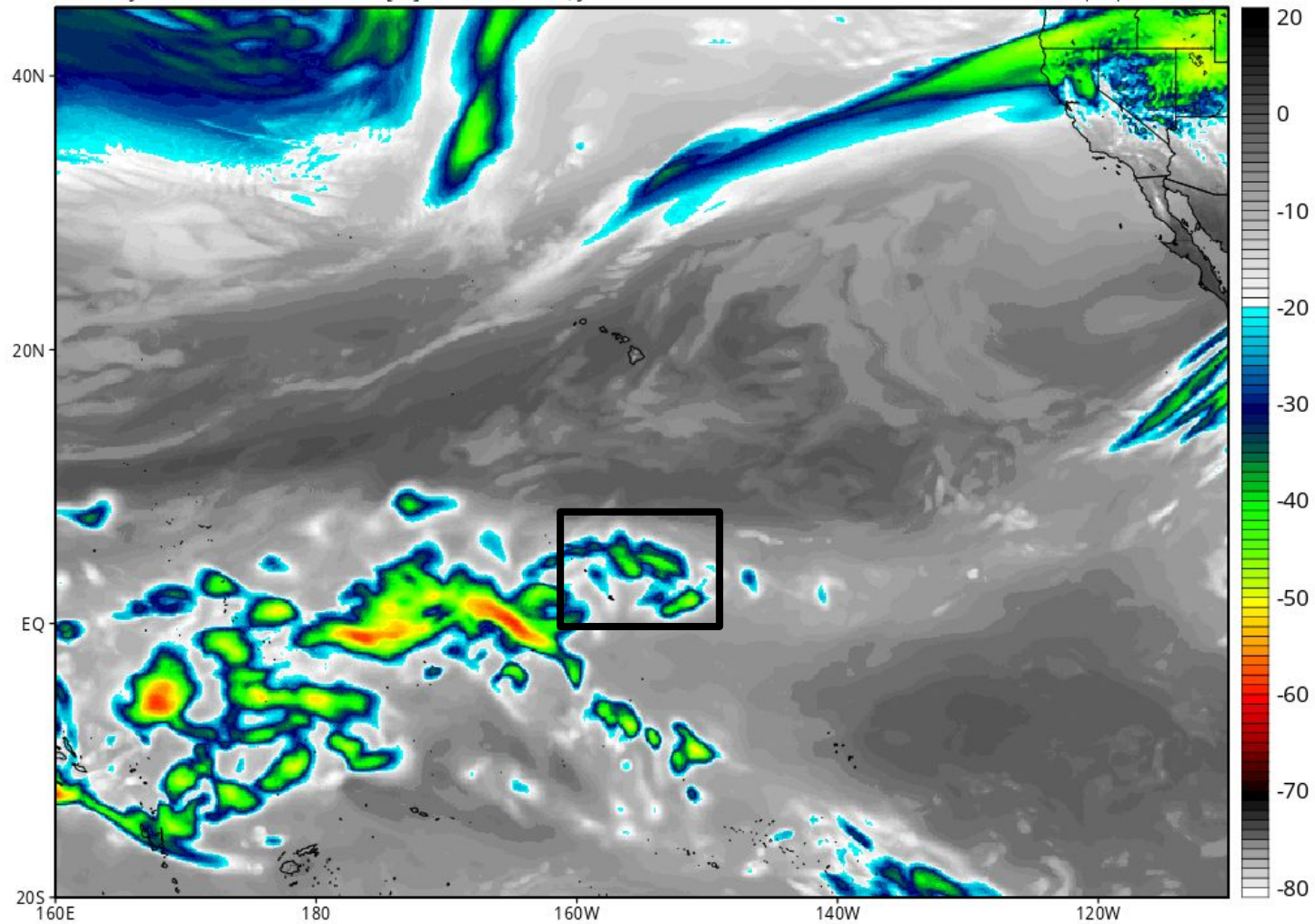
Levi Cowan | tropicaltidbits.com



GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 29 2016 Forecast Hour: [12] valid at 00z Sat, Jan 30 2016

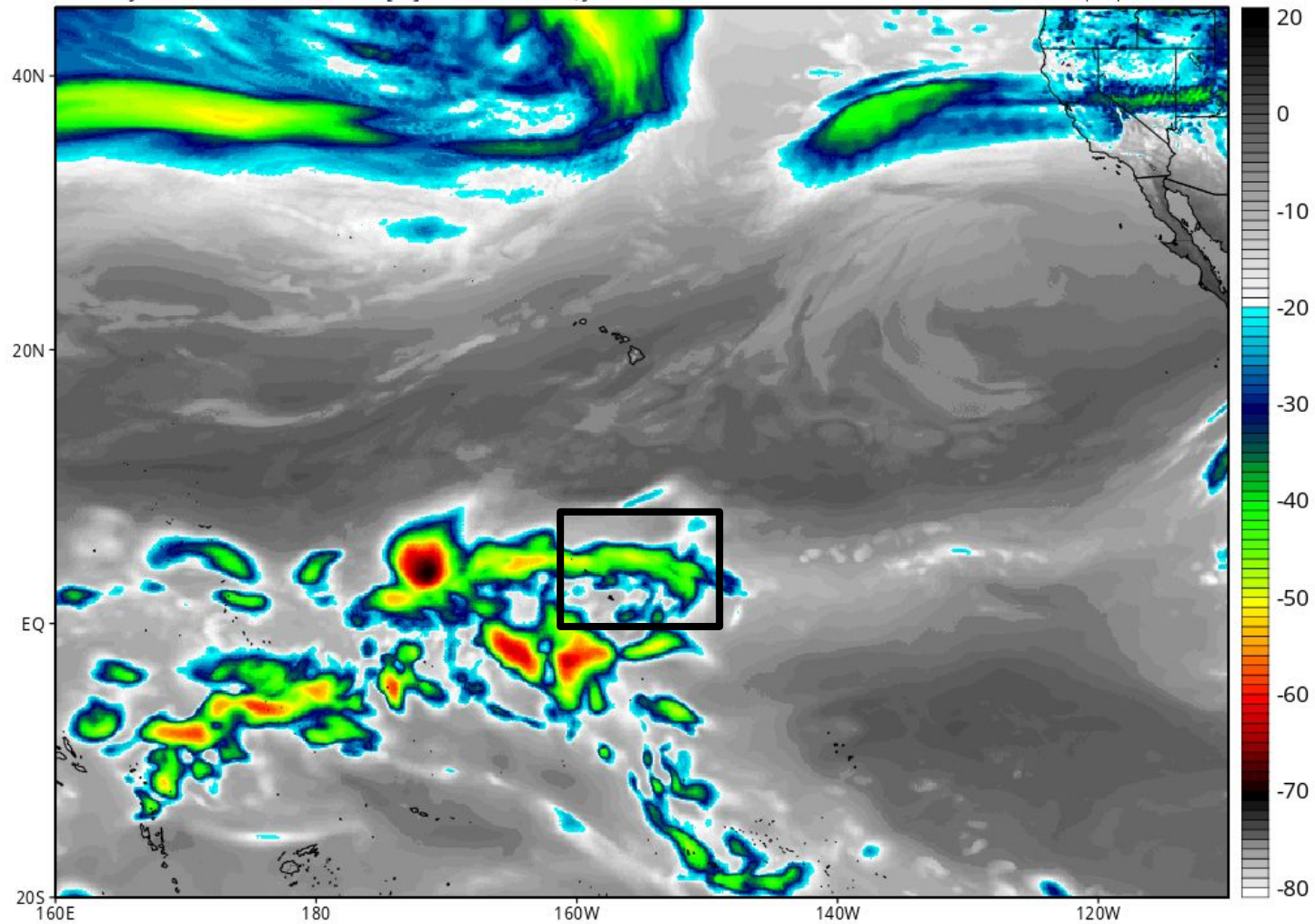
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GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 29 2016 Forecast Hour: [36] valid at 00z Sun, Jan 31 2016

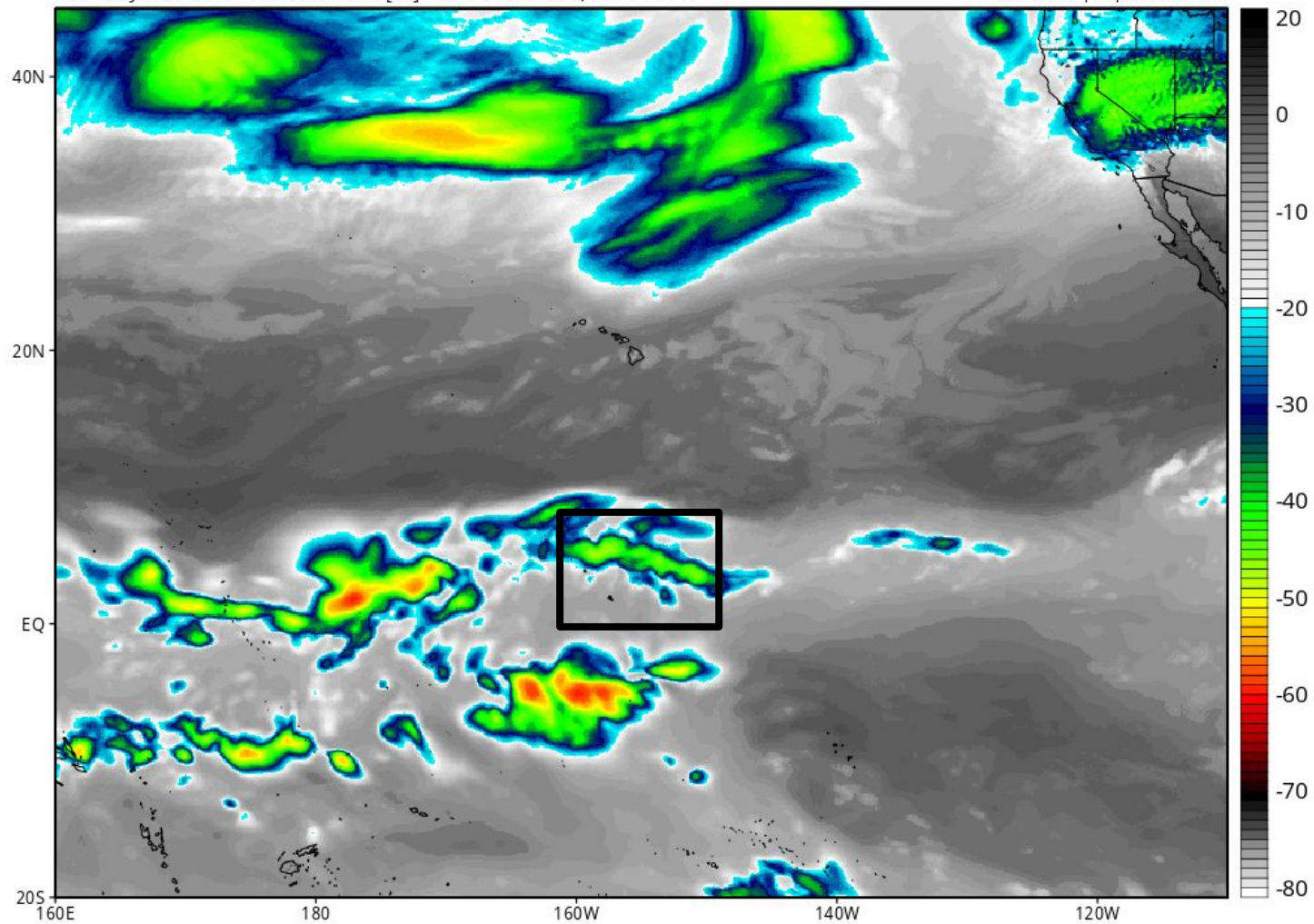
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GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 29 2016 Forecast Hour: [60] valid at 00z Mon, Feb 01 2016

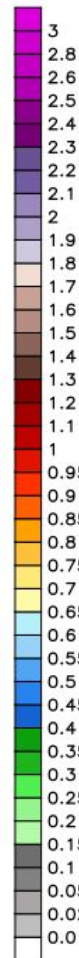
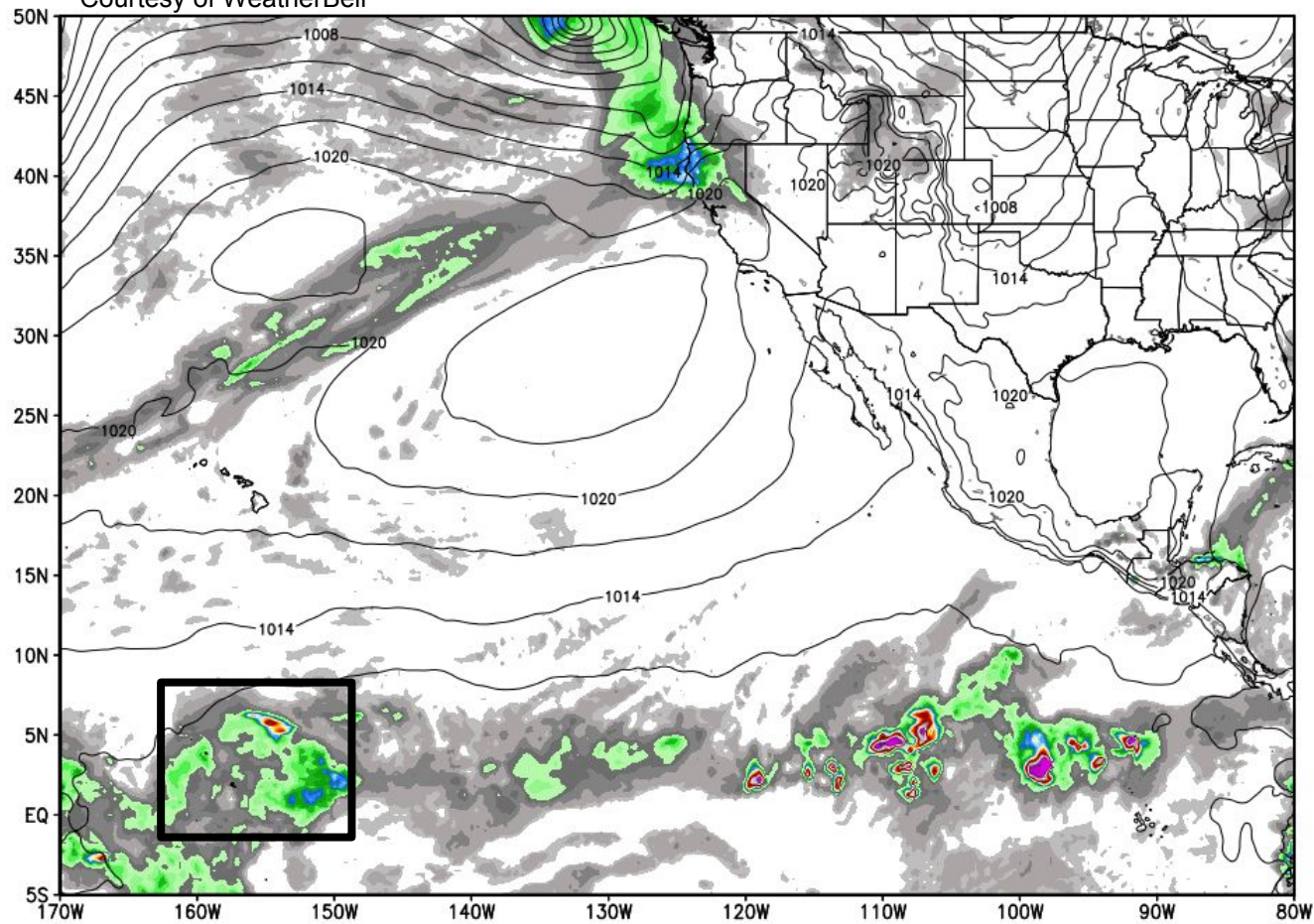
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ECMWF 6-hourly Precipitation [inches] between 06Z29JAN2016 -- 12Z29JAN2016 & MSLP [hPa]
INIT: 00Z29JAN2016 fx: [012] hr --> Fri 12Z29JAN2016

Courtesy of WeatherBell

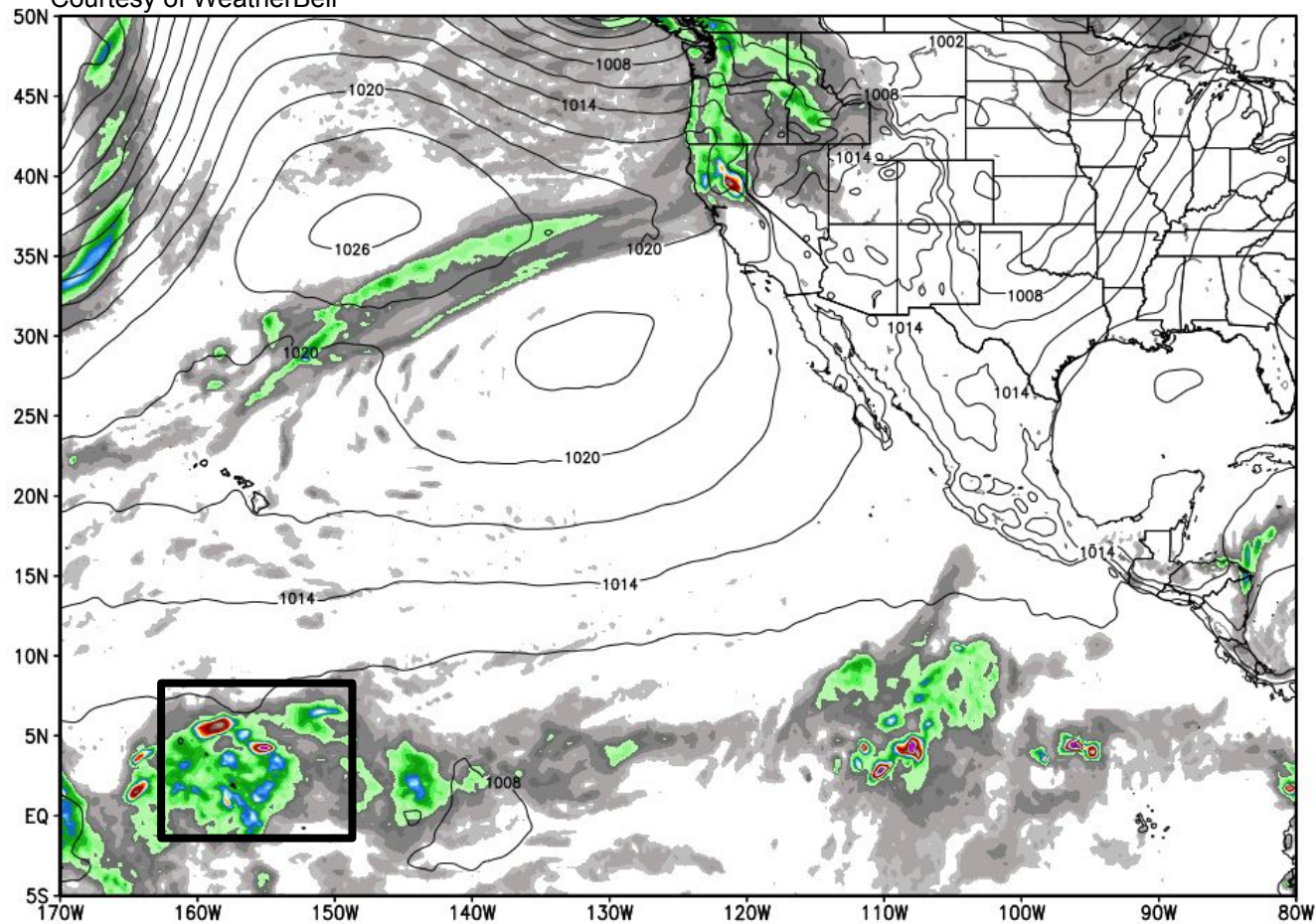
Latest ECMWF 12HR Fcst Valid 12Z Fri



ECMWF 6-hourly Precipitation [inches] between 18Z29JAN2016 -- 00Z30JAN2016 & MSLP [hPa]
INIT: 00Z29JAN2016 fx: [024] hr --> Sat 00Z30JAN2016

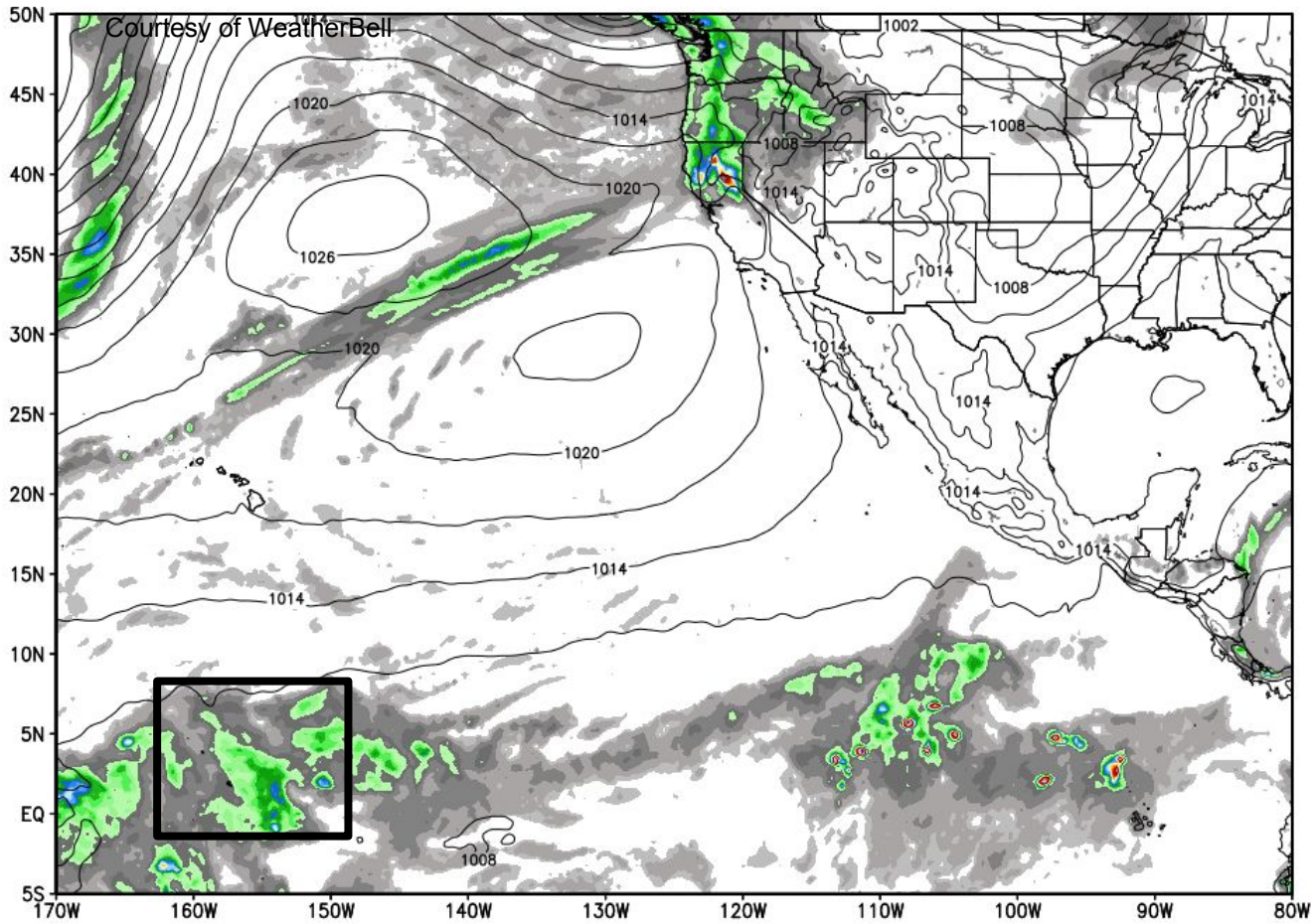
Courtesy of WeatherBell

Latest ECMWF 24HR Fcst Valid 00Z SAT




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ECMWF 6-hourly Precipitation [inches] between 18Z29JAN2016 -- 00Z30JAN2016 & MSLP [hPa]
INIT: 00Z28JAN2016 fx: [048] hr --> Sat 00Z30JAN2016
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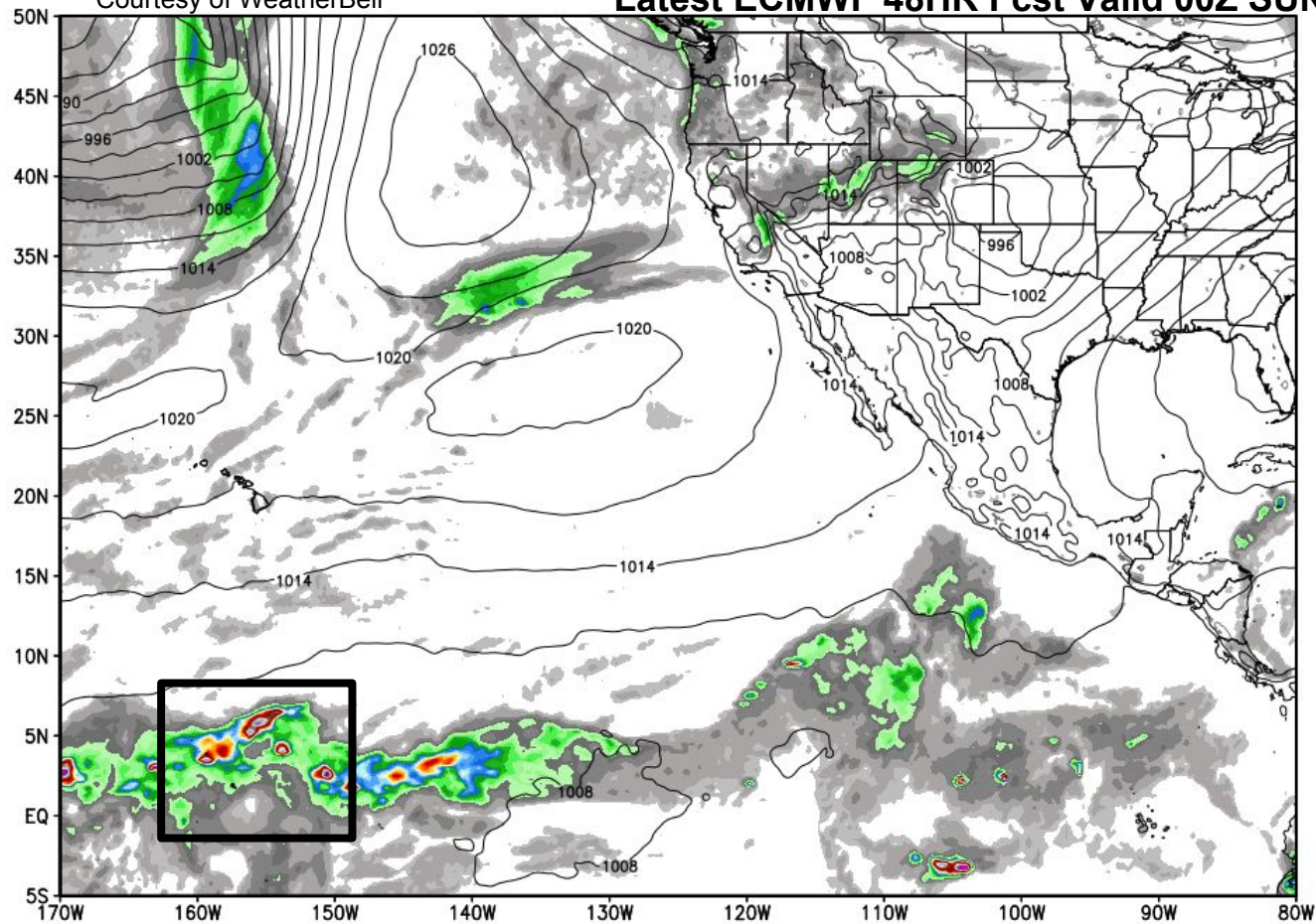
Prior: ECMWF 48HR Fcst Valid 00Z Sat



ECMWF 6-hourly Precipitation [inches] between 18Z30JAN2016 -- 00Z31JAN2016 & MSLP [hPa]
INIT: 00Z29JAN2016 fx: [048] hr --> Sun 00Z31JAN2016

Courtesy of WeatherBell

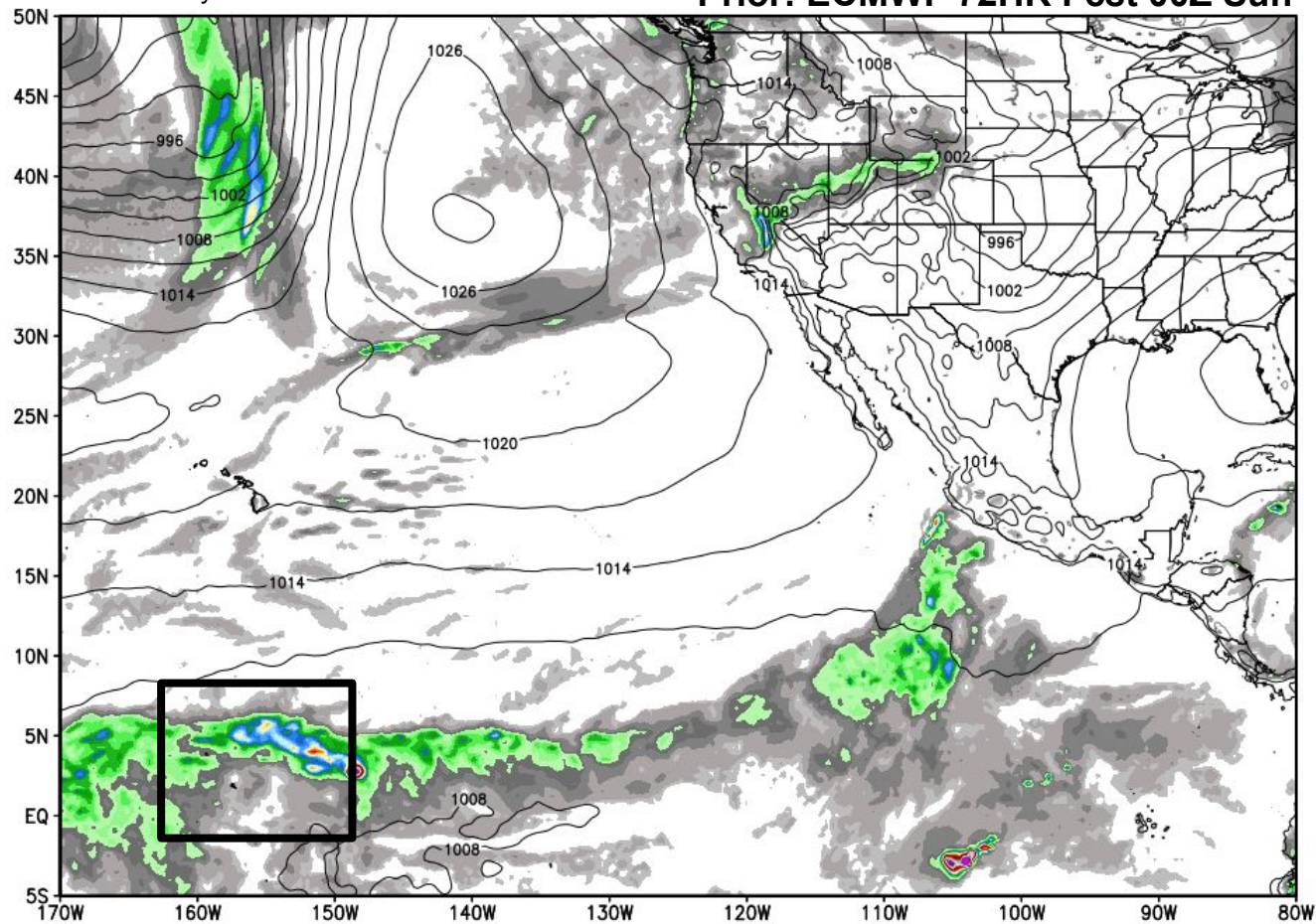
Latest ECMWF 48HR Fcst Valid 00Z SUN



ECMWF 6-hourly Precipitation [inches] between 18Z30JAN2016 -- 00Z31JAN2016 & MSLP [hPa]
INIT: 00Z28JAN2016 fx: [072] hr --> Sun 00Z31JAN2016

Courtesy of WeatherBell

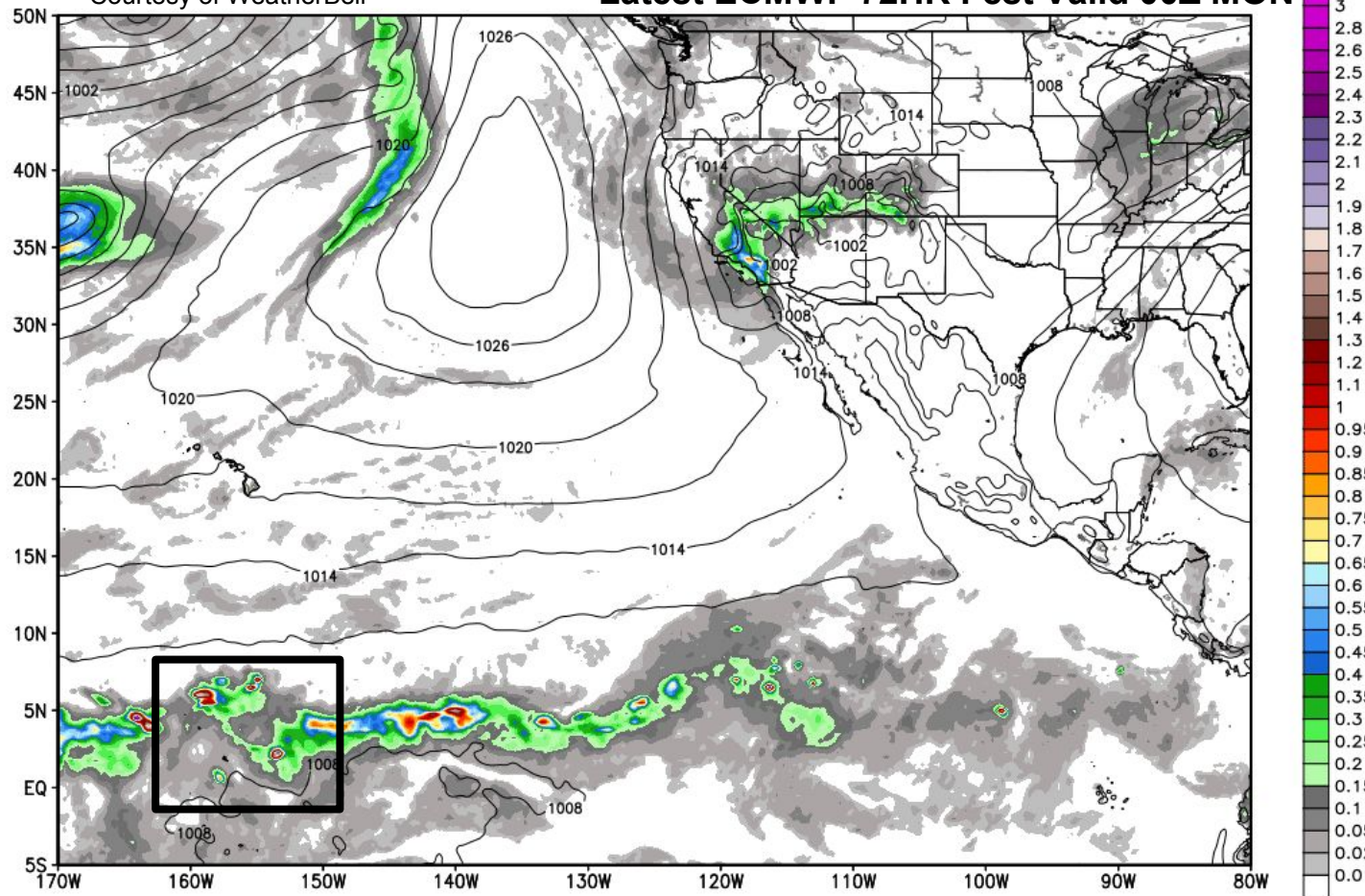
Prior: ECMWF 72HR Fcst 00Z Sun



ECMWF 6-hourly Precipitation [inches] between 18Z31JAN2016 -- 00Z01FEB2016 & MSLP [hPa]
INIT: 00Z29JAN2016 fx: [072] hr --> Mon 00Z01FEB2016

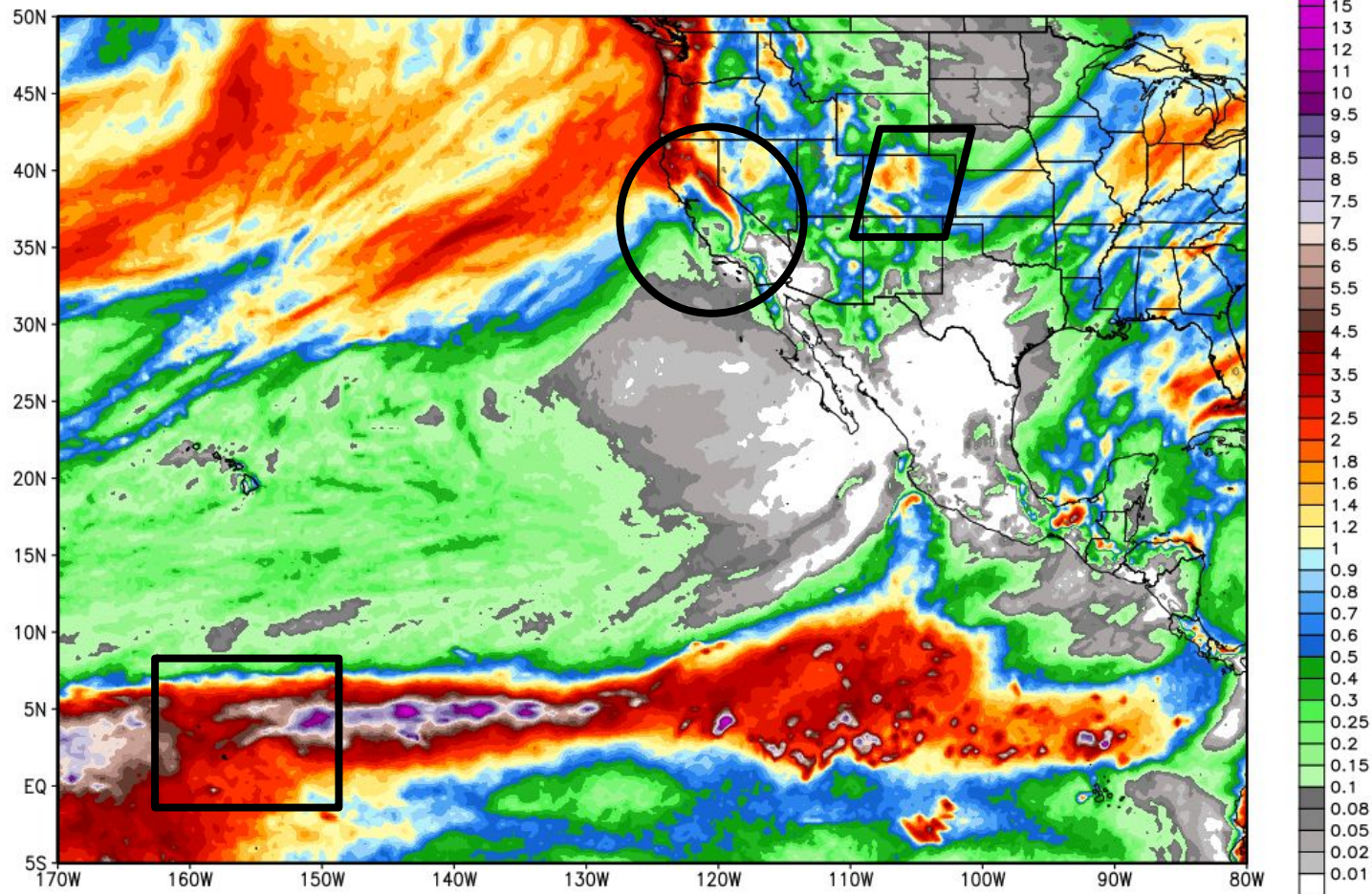
Courtesy of WeatherBell

Latest ECMWF 72HR Fcst Valid 00Z MON



ECMWF Total Precipitation [inches] between 00Z28JAN2016 -- 00Z04FEB2016
INIT: 00Z28JAN2016 fx: [168] hr --> Thu 00Z04FEB2016

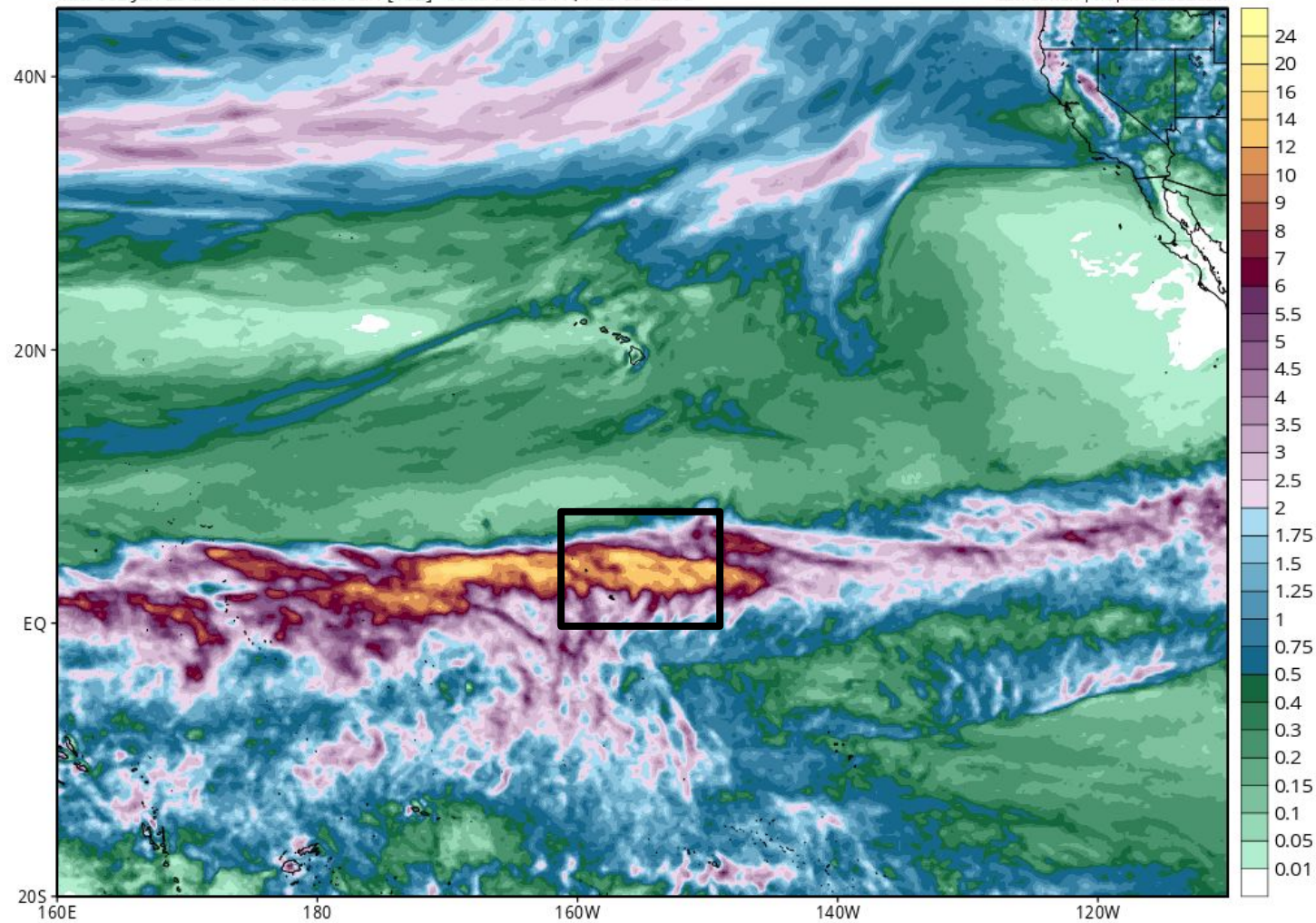
Max 16.0 in



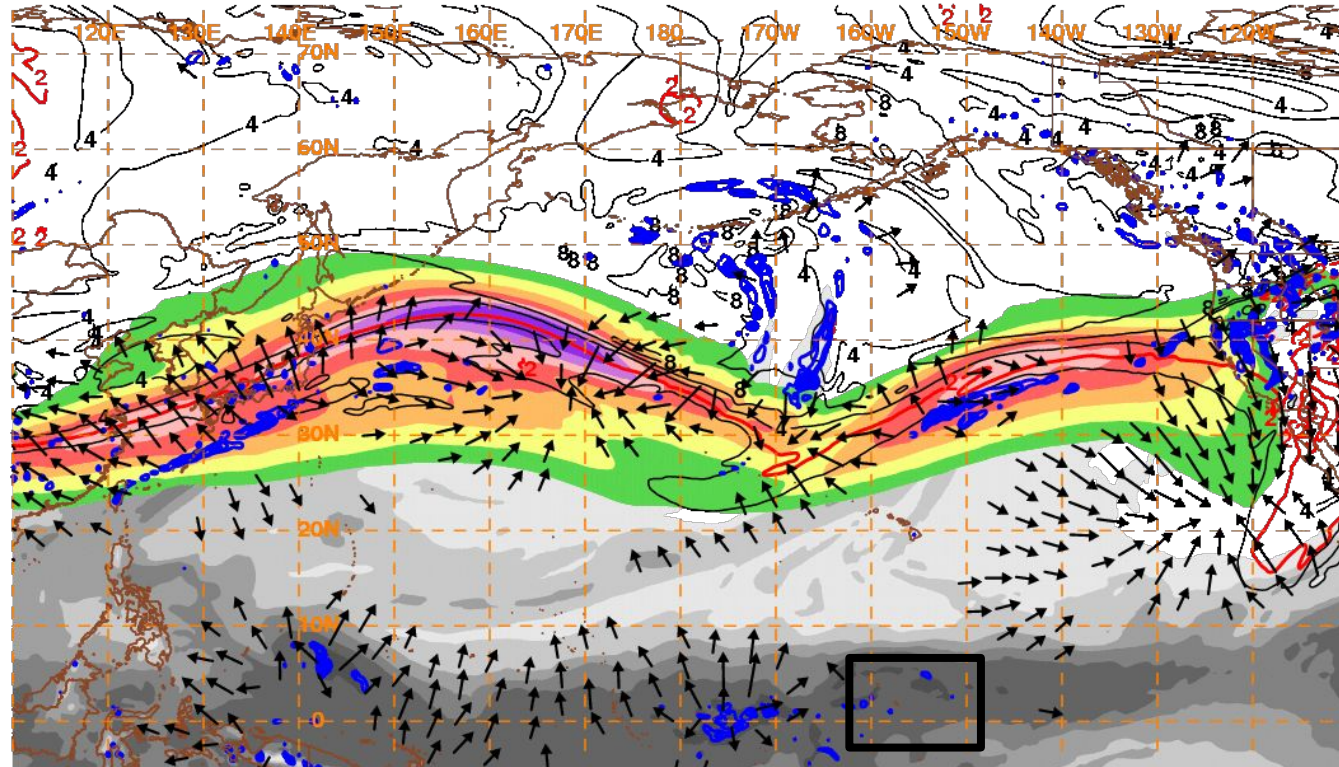
GFS Total Accumulated Precipitation (inches) from 06z29Jan2016 to 00z05Feb2016

Init: 06z Jan 29 2016 Forecast Hour: [162] valid at 00z Fri, Feb 05 2016

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From Latest Initialization of GFS (06Z FRI 29 Jan)
GFS 18-hr Fcst Valid 00Z 30 January SAT (2pm local HT FRI)

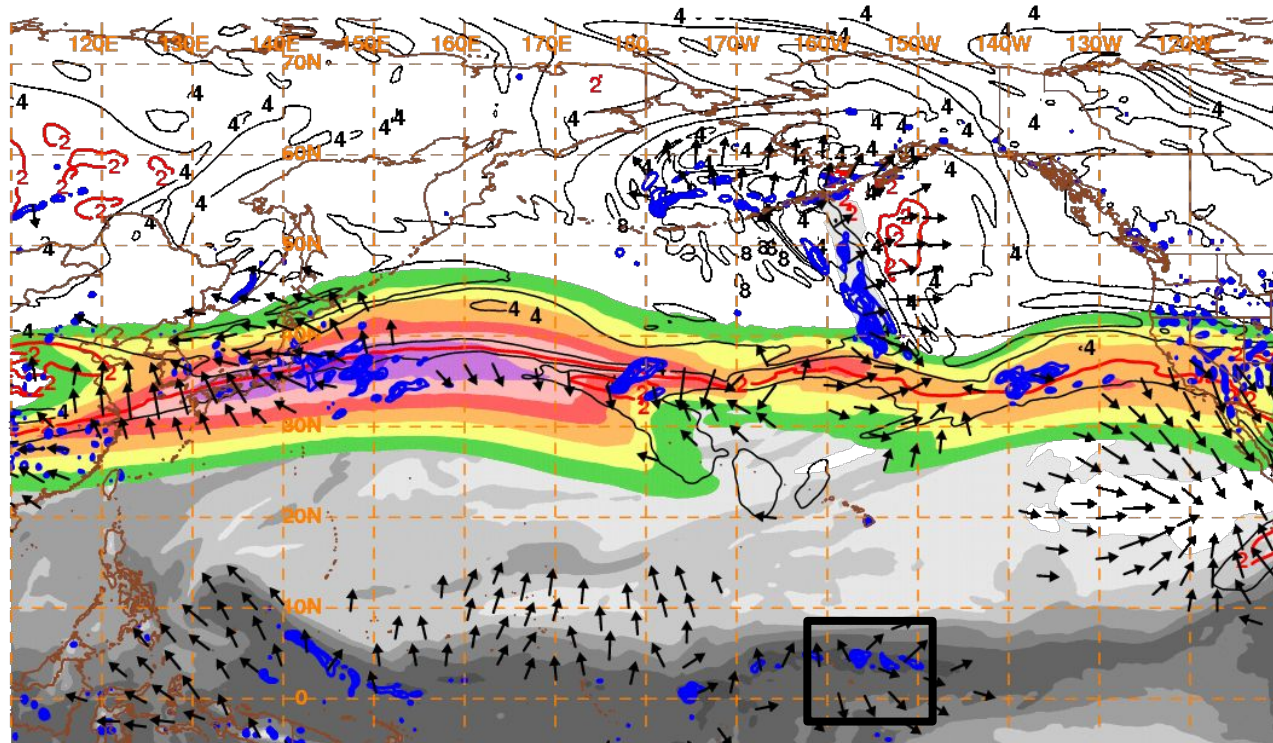


10 m/s → **160130/0000V018 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel**



From Latest Initialization of GFS (06Z FRI 29 Jan)

GFS 42-hr Fcst Valid 00Z 31 January SUN (2pm local HT SAT)

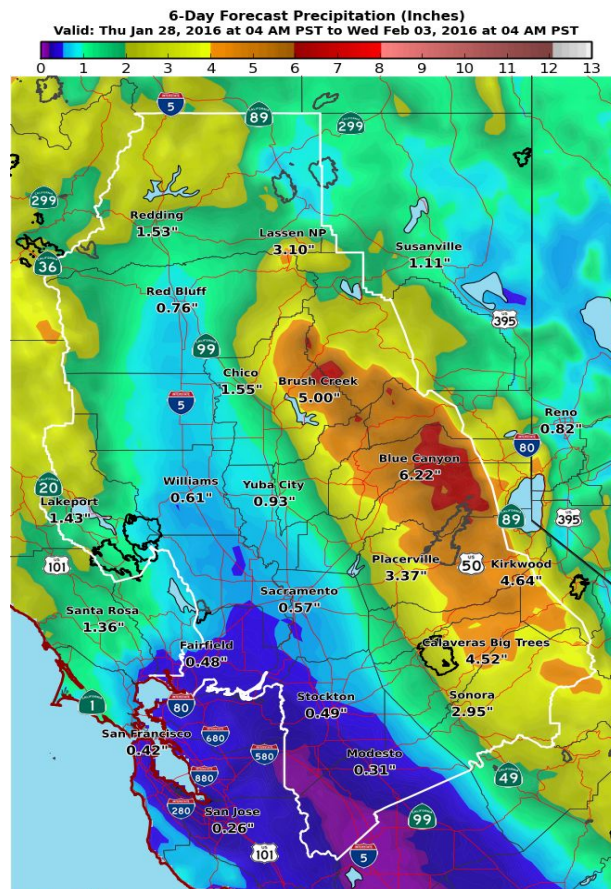


10 m/s → 160131/0000V042 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



Medium - Long Range Forecast

CNRFC 6-Day Pcpn Thu 28 Jan - Wed 3 Feb



National Weather Service
CNRFC - Sacramento, CA
Created: 01/28/2016 08:05 AM PST

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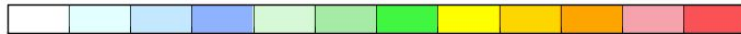
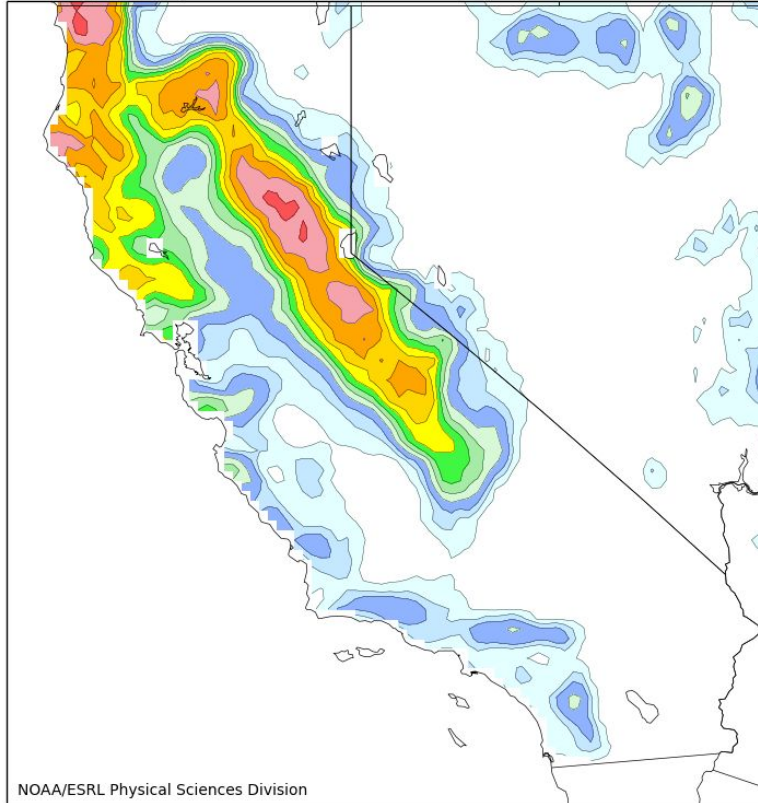


www.cnrfc.noaa.gov

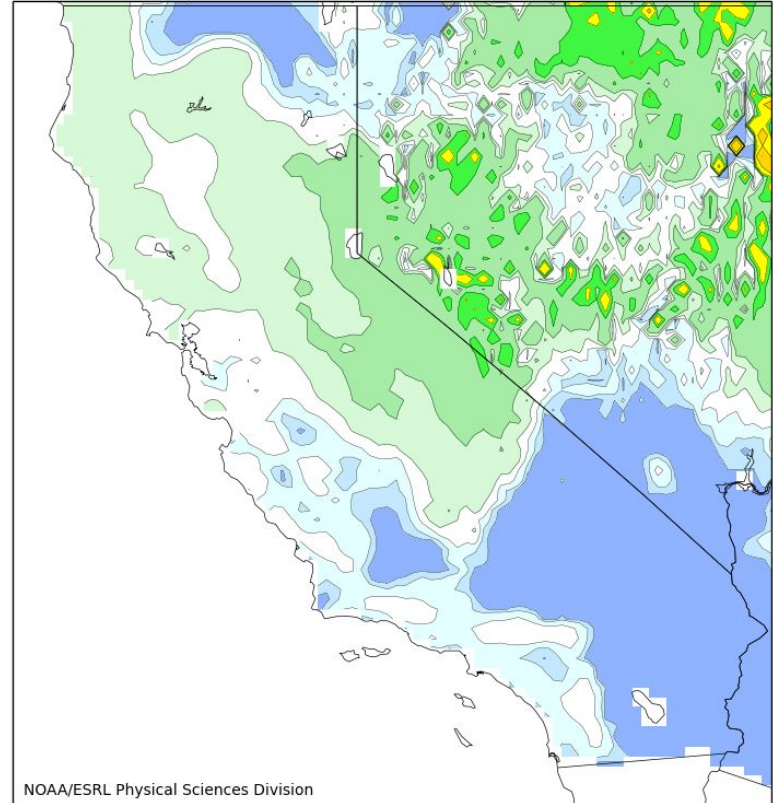
Medium - Long Range Forecast

ESRL-Calibrated Reforecast Pcpn : Day 0-7 Fcst for 00z 29 January -00z FRI February 5 (from the 00Z FRI 29 JAN ensembles of the experimental reforecast system)

000-168hr fcst from 00Z Fri Jan 29. Valid 00Z Fri Jan 29 - 00Z Fri Feb 05
Probability of Precip > 50mm. CSGD. 2002-2013 CCPA and Reforecast2 Calibration.

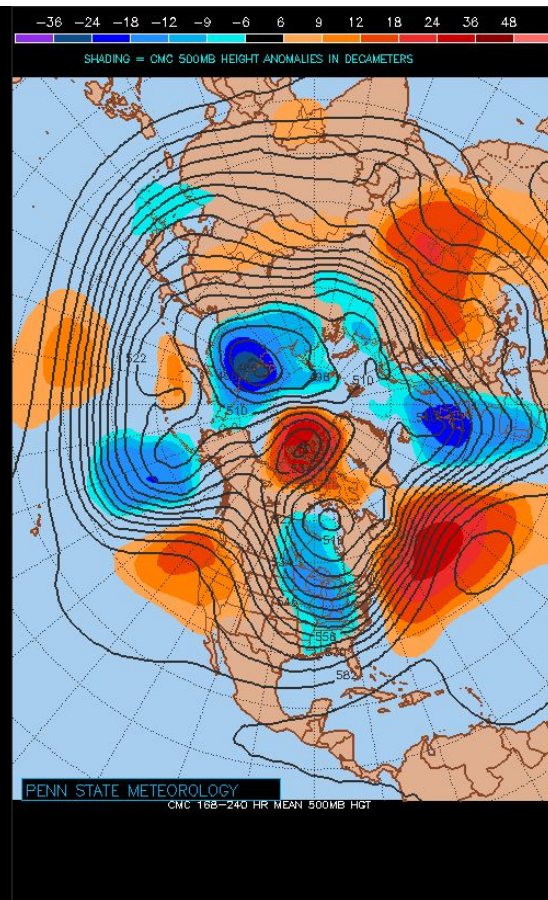
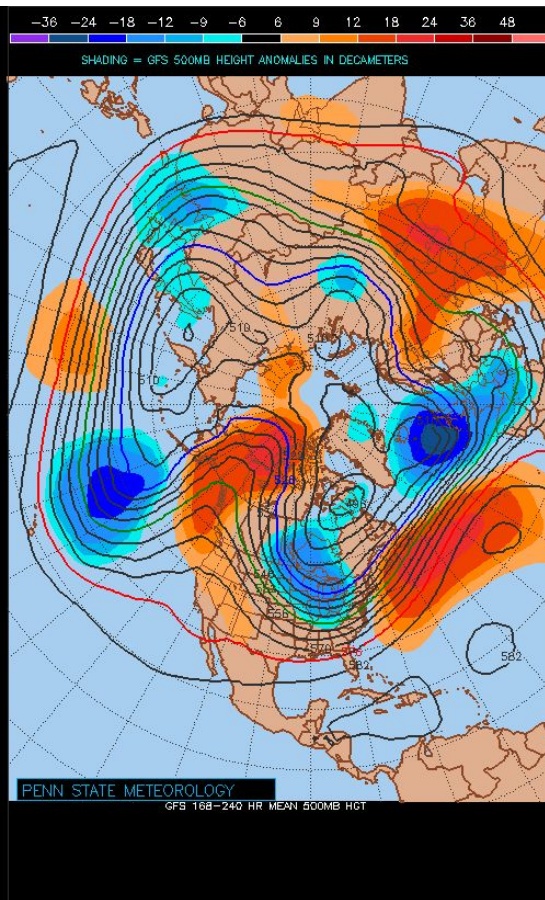
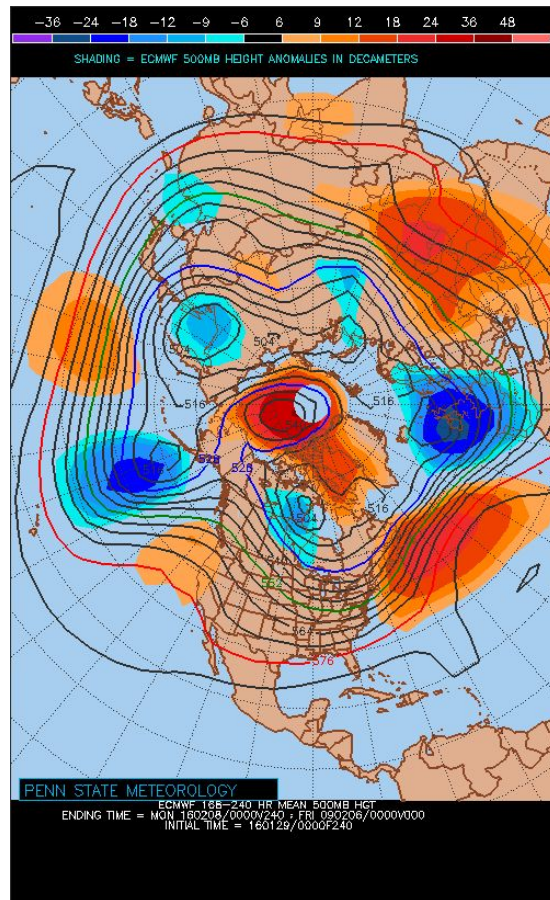


000-168hr fcst from 00Z Fri Jan 29. Valid 00Z Fri Jan 29 - 00Z Fri Feb 05
Ratio. Forecast/Climo Prob of Precip > 50mm. CSGD.



Medium - Long Range Forecast

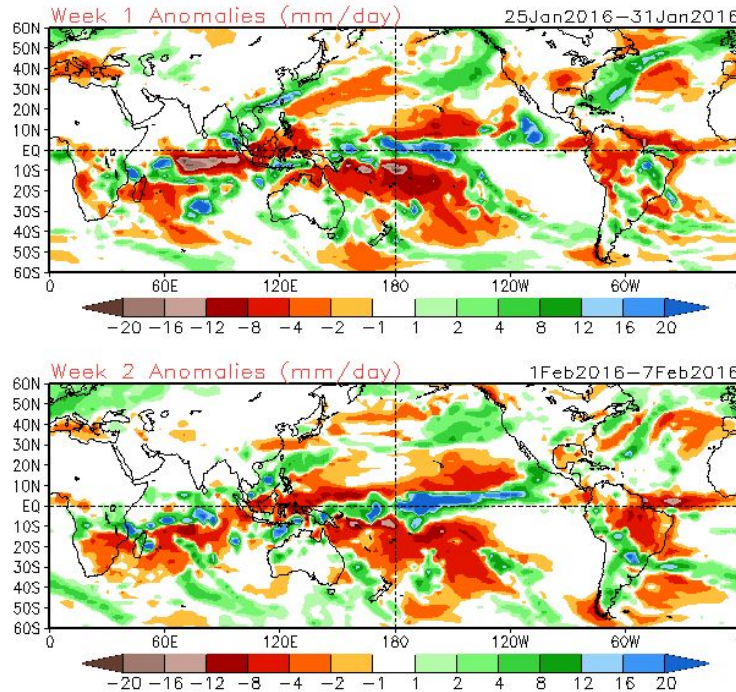
Day 7-10 Initialized 00Z Fri 29 Jan



Medium - Long Range Forecast

CFS Week 1 and Week 2 PCPN Anomalies: Jan 24 initialized

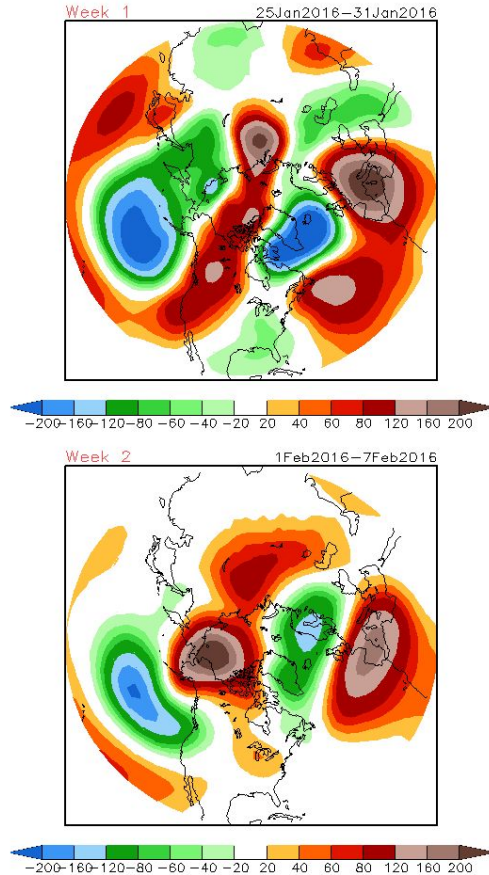
CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 24Jan2016



Medium - Long Range Forecast

CFS Week 1 and Week 2 500 mb Height Anomalies: Jan 23 initialized

CFSv2 Weeks 1 & 2 500 hPa Z Anomalies (m)
16 Member Ensemble Mean Forecast from 24Jan2016



Medium - Long Range Forecast

CFS Week 1 and Week 2 NA Pcpn Anomalies: Jan 23 initialized

CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 24Jan2016

